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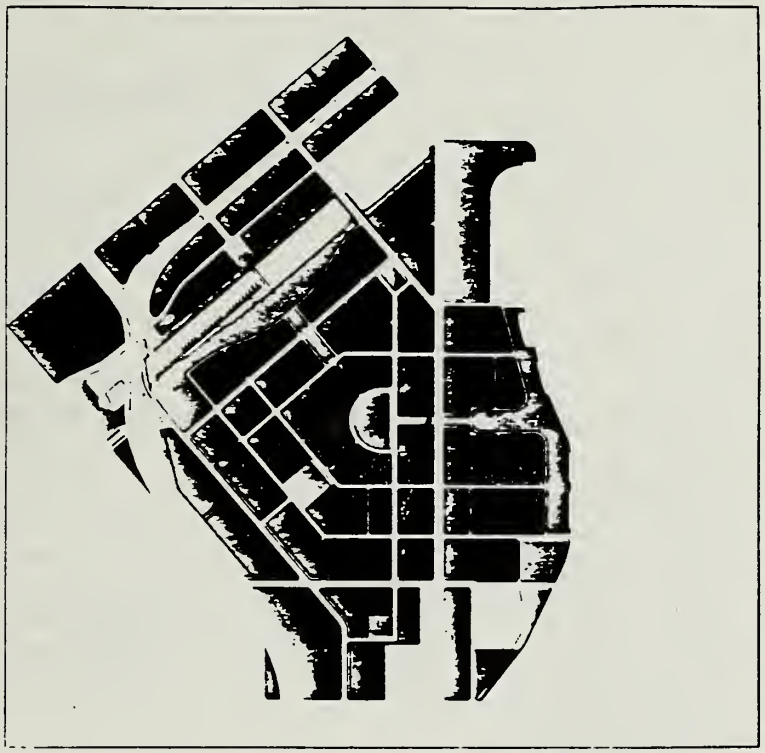

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MISSION BAY PLAN
PROPOSAL FOR ADOPTION

DEPARTMENT OF CITY PLANNING
CITY AND COUNTY OF SAN FRANCISCO

JANUARY 1990

FINAL MISSION BAY PLAN
As Amended September 1990
(with handwritten revisions)

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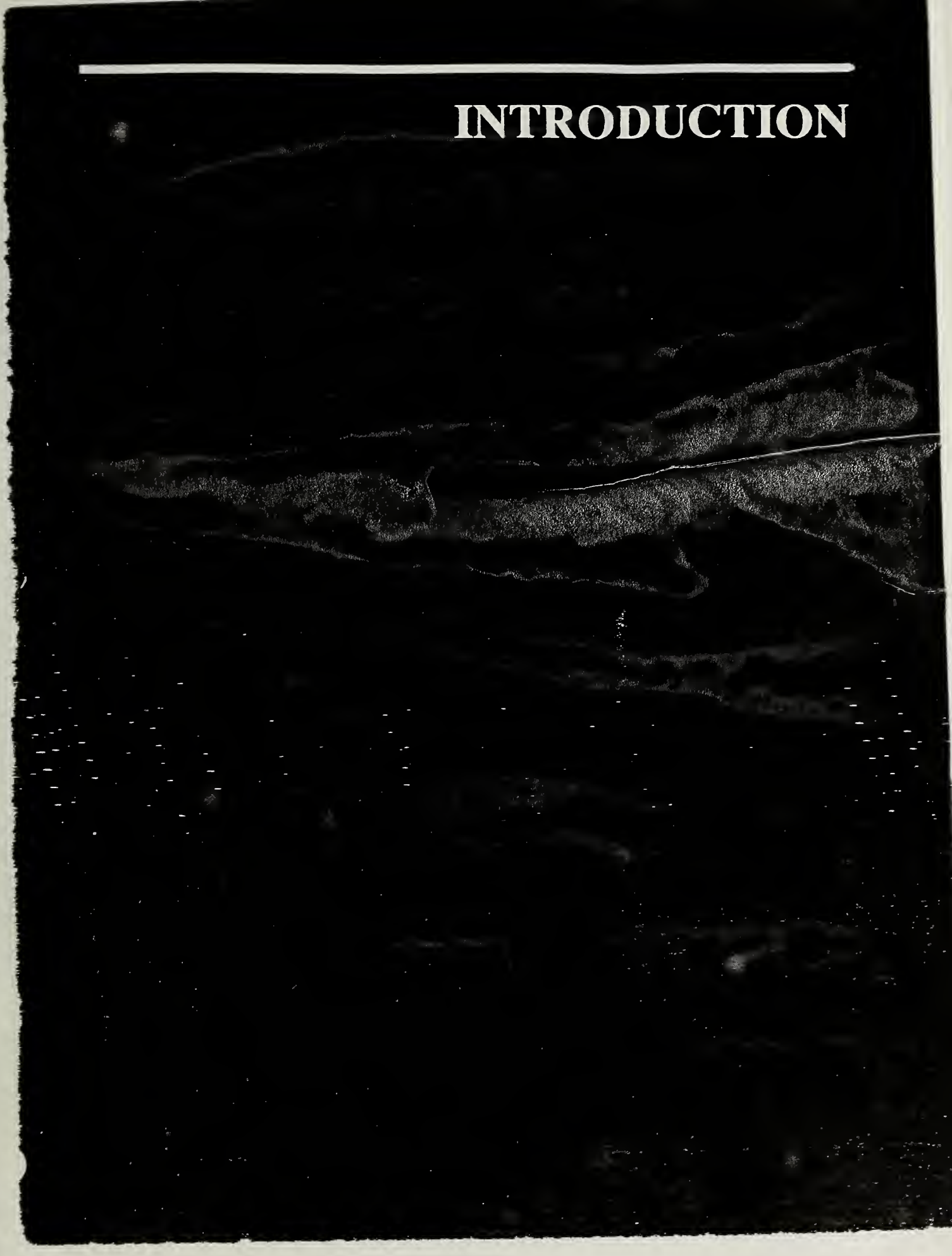
INTRODUCTION



Introduction

This is the Plan for Mission Bay. It has been prepared by the San Francisco Department of City Planning with participation from ~~Santa Fe Pacific Realty~~ Catellus Development Corporation (hereafter referred to as the Project Sponsor) and many interested San Franciscans.

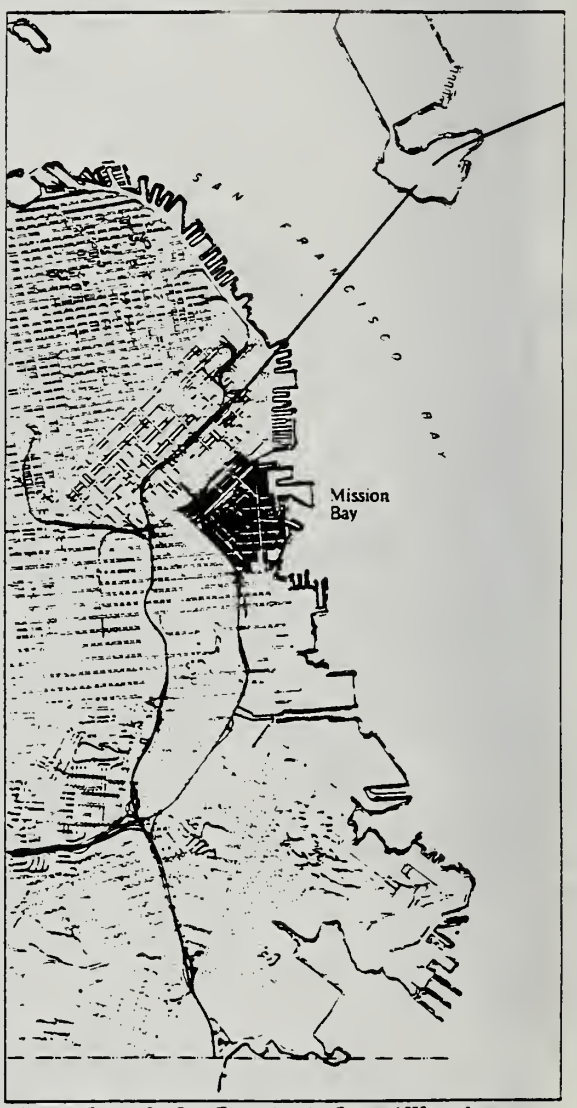
Mission Bay encompasses ~~315~~ 313 acres and is under the jurisdiction of the City and County of San Francisco. The Mission Bay plan area is about one mile south of San Francisco's Financial District on both north and south sides of China Basin Channel. It is bordered by the South of Market, Showplace Square, North Potrero, Potrero Hill, the Central Bayfront and San Francisco Bay. Its boundaries are generally Townsend Street on the north, Seventh Street and Interstate 280 on the west, Mariposa Street on the south and China Basin and Third Streets on the east.

Following this **Introduction**, the Plan includes site **History and Background** in ~~Section~~ chapter 2 and a complete description of **The Mission Bay Plan** in ~~Section~~ chapter 3, and Implementation in Chapter 4.

PURPOSE AND INTENT

The City and County of San Francisco has an adopted Master Plan consisting of functional elements addressing residence, commerce, open space and other such topics. The Master Plan also includes area plans dealing with more specific planning for particular geographic areas of the City. The Central Waterfront Plan, of which Mission Bay is a part, is such an area plan. It provides land use planning objectives and policies for the entire Central Waterfront. The Mission Bay Plan is a Specific Plan offering a more detailed treatment of each of the Master Plan Elements while describing planning policies, specific land uses and development regulations for a discrete area within the Central Waterfront Plan.

The Mission Bay Plan has been prepared to qualify as a Specific Plan, pursuant California state law (Government Code Section 65450 et seq.), and provides a comprehensive set of plans, policies, guidelines and implementation measures ensuring the orderly development of Mission Bay. It fulfills the objectives and policies of the City's Master Plan. ~~For a comprehensive statement of the relationship of the Mission Bay Plan to the City's Master Plan, see Addendum 1.~~ The Mission Bay Plan contains text and diagrams as follows:



Mission Bay: On San Francisco's Central Waterfront

- The distribution, location, extent and intensity of the uses of land within the plan area;
- The proposed distribution, location, extent and capacity of major components for public and private transportation, sewer, water, drainage, solid waste, energy and other essential facilities to be located within the plan area and needed to support the plan area land uses; and
- Standards and criteria, including design guidelines, by which development will proceed as well as standards for the conservation, development and use of natural resources.
- A statement of the relationship of the Specific Plan to the Master Plan.
- A program of implementation measures including regulations, public works projects and financing measures necessary to carry out the above.

Text and map amendments to the City's Master Plan and Central Waterfront Plan have been prepared to ensure consistency between these plans and the Mission Bay Plan. In particular, text and graphic amendments have been drafted for each of the Master Plan functional elements (residence, commerce and industry, recreation and open space, transportation, urban design, environmental protection, community facilities, and community safety) where Mission Bay is addressed. Also, the Central Waterfront Plan which encompasses Mission Bay has been revised to gain conformance in sections where Mission Bay is addressed.

All of the information listed above is provided in this document, ~~except detailed implementation plans and programs which are part of the **Mission Bay Specific Plan - A Program of Implementation Measures**, which is published under separate cover.~~ The Development Agreement also contains implementation regulations, programs, public works projects and financing measures necessary to carry out the Specific Plan. The Development Agreement establishes the terms

Mission Bay Today

and conditions for development within the plan area and along with related documents addresses the following topics, among others:

- Development Sequencing
- Master Facilities Plan
- Infrastructure Financing
- ~~Toxic~~ Remediation Hazardous Materials
- Housing Affordability and Linkage
- Economic Development, ~~and~~ Affirmative Action and Job Training
- Transportation ~~Systems~~ Management
- Energy Conservation
- Water Conservation
- Land Exchanges

An Environmental Impact Report (EIR) is a companion document necessary for the approval of the Mission Bay Specific Plan. The process by which the Mission Bay Plan, Master Plan Amendments, Planning Code (Zoning Ordinance) amendments, Development Agreement and EIR are adopted is described in the Mission Bay EIR (Volume Two), Section VI.A1-80.

MISSION BAY PLANNING PROCESS

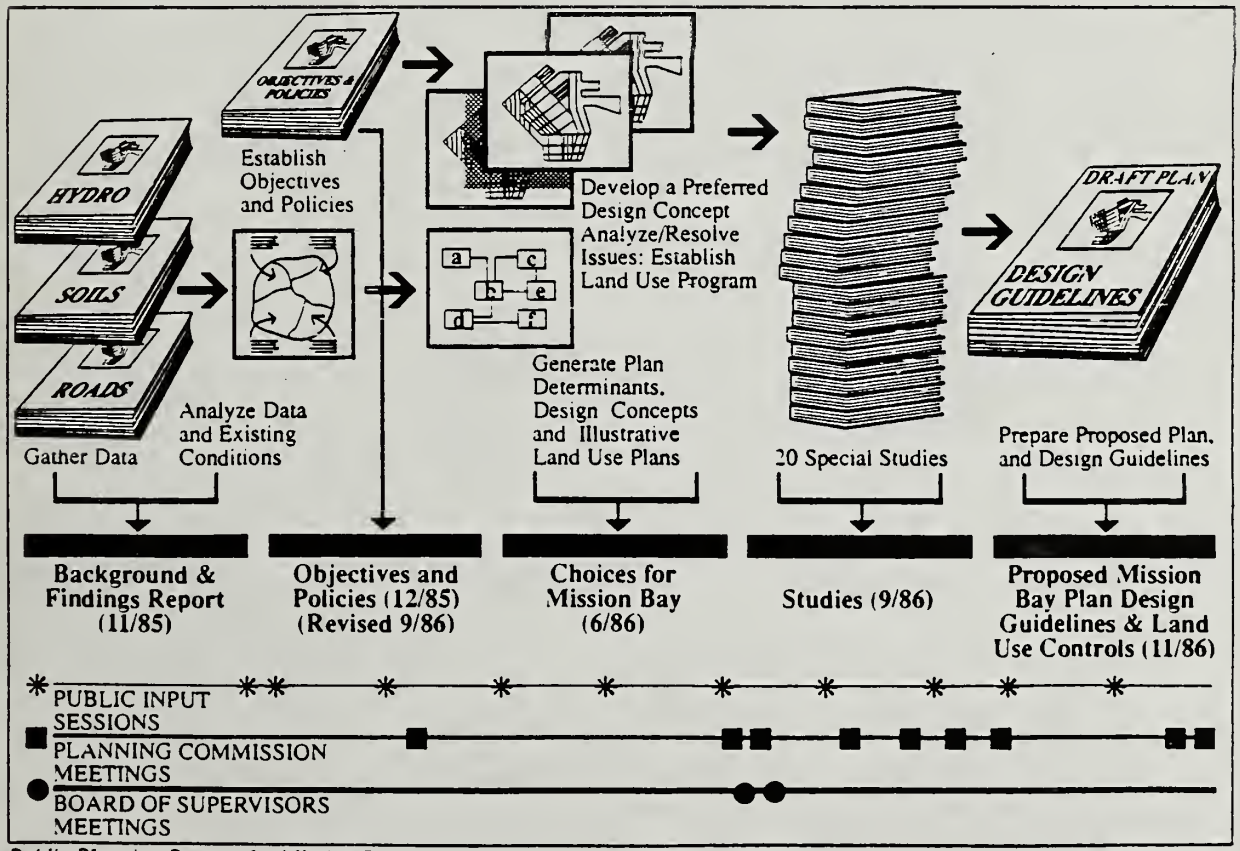
Recent planning for Mission Bay spans an eight-year period. It began in July 1981 when Southern Pacific Development Company presented its initial development concept to the City. The preliminary program was for 9,000 residential units; 2,100 hotel rooms; 10 million square feet of commercial use, including office, warehouse, and showroom space; and ten acres of recreational space. That plan did not correspond to many of the City's urban design principles and following City feedback was withdrawn from consideration. A second Southern Pacific proposal was offered in 1983, following a series of public planning forums. The revised proposal called for building heights up to 42 stories for 11.7 million square feet of office space; 7,000 housing units; 4.3 million square feet of research and development space; 500,000 square feet of retail and hotel space; and 40 acres of major parks, waterways and plazas. This concept also did not gain City or community

Mission Bay Tomorrow

support. In May 1985, the Department of City Planning, with ~~Santa Fe Pacific Realty Corporation as~~ cooperation and assistance from the Project Sponsor, initiated a new public planning process to prepare an implementable plan for a mixed use Mission Bay community.

The Department and its consultants then undertook a two year process with community and city-wide representatives, the Project Sponsor and other governmental agencies to prepare the 1987 **Mission Bay Plan - A Proposal for Citizen Review.** This interactive planning process involved public dialogue, meetings, information exchange, newsletters, forums, issue-oriented small group meetings, open design studio hours, citizen review of preliminary draft reports, and environmental impact report scoping. It resulted in a plan that incorporated many of the values and needs articulated by the public, through organizations including the Mission Bay Clearinghouse, Mission Creek Conservancy, Mission Creek Harbor Association, San Francisco Tomorrow, Coalition for San Francisco Neighborhoods, Community Development Council, Potrero League of Active Neighbors, Potrero Boosters and Merchants Association, Potrero Hill Community Development Corporation, Council of Community Housing Organizations, San Franciscans for Reasonable Growth, Community Design Center, South of Market Planning Alliance, American Institute of Architects/San Francisco Chapter, Sierra Club, Audubon Society/Golden Gate Chapter, and San Francisco Planning and Urban Research Association.

Since the current planning began in September 1984, the City Planning Commission and Department of Planning have held several hundred public hearings or meetings about the interim reports and special studies which addressed the **Preliminary Background and Findings, Objectives and Policies for Mission Bay, Choices for Mission Bay,** twenty **Special Studies** (addressing site development and plan feasibility) and the January 1987 **Mission Bay Plan - A Proposal for Citizen Review.** The Board of Supervisors also held periodic hearings to receive progress reports

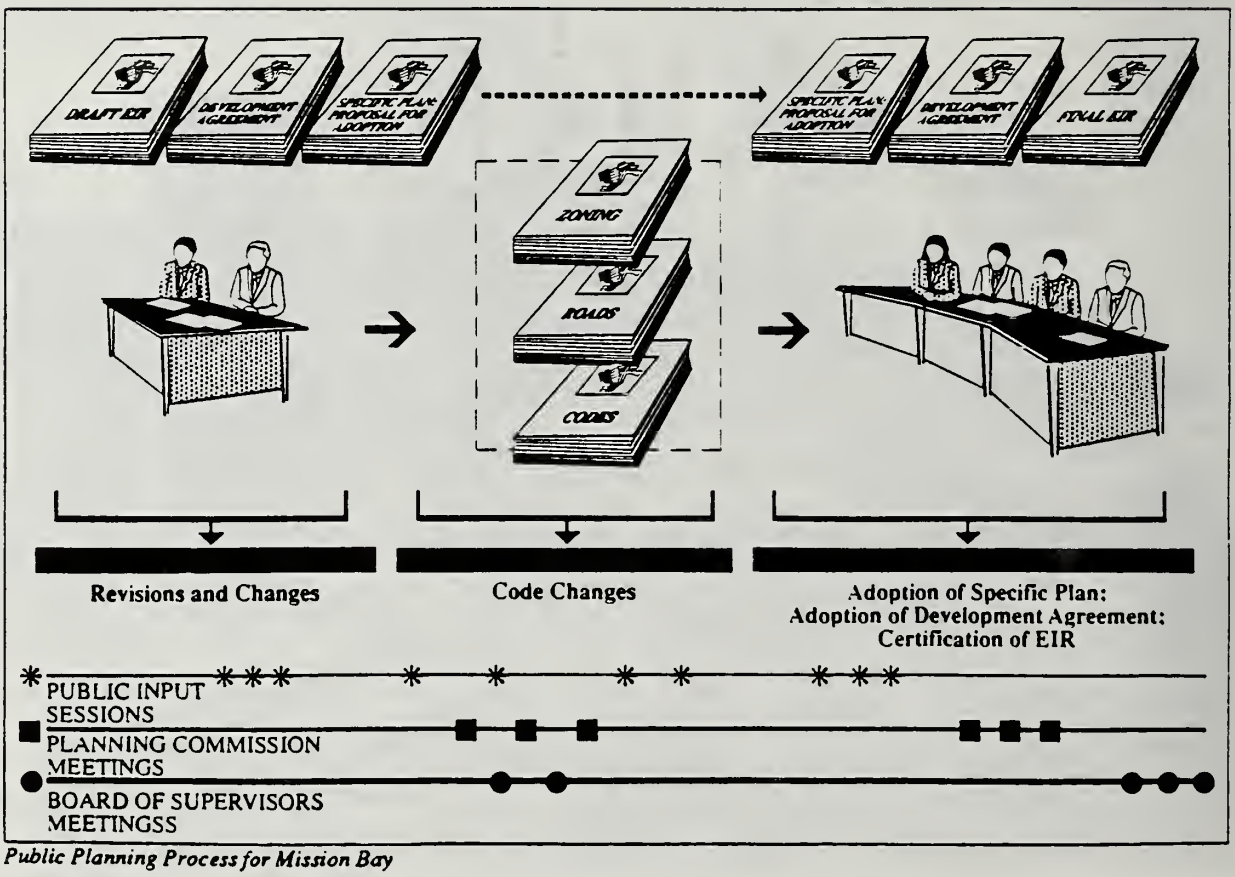

OBJECTIVES & POLICIES
HYDRO
SOILS
ROADS
Establish Objectives and Policies
Develop a Preferred Design Concept
Analyze/Resolve Issues: Establish Land Use Program
DRAFT PLAN
DESIGN GUIDELINES
Generate Plan Determinants, Design Concepts and Illustrative Land Use Plans
Analyze Data and Existing Conditions
Gather Data
20 Special Studies
Prepare Proposed Plan, and Design Guidelines
Background & Findings Report (11/85)
Objectives and Policies (12/85) (Revised 9/86)
Choices for Mission Bay (6/86)
Studies (9/86)
Proposed Mission Bay Plan Design Guidelines & Land Use Controls (11/86)
PUBLIC INPUT SESSIONS
PLANNING COMMISSION MEETINGS
BOARD OF SUPERVISORS MEETINGS
Public Planning Process for Mission Bay

and accept funding from the Project Sponsor for continued public planning.

Following the January 1987 release of the Mission Bay Plan - A Proposal for Citizen Review and in response to subsequent public input at additional public hearings regarding the Plan and its potential environmental impacts (see the Draft EIR for Mission Bay), the City and the Project Sponsor have jointly evaluated the plan to determine how to implement it. To ensure that it is technically and economically feasible, a number of modifications have been agreed upon by both parties. These modifications are reflected in this Specific Plan.

~~1. The key Plan modifications are itemized in a memo entitled "Mission Bay Plan Modifications, 1987-1990, available at the Department of City Planning.~~

Public Planning Process



Public Planning Process for Mission Bay

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HISTORY AND BACKGROUND

History and Background

This section describes the history and physical background of Mission Bay, both of which are reflected in the Plan. The plan area has changed significantly over the past 100 years of San Francisco's economic development. The historic roles it has played in the City's growth are described in this section, along with the existing physical site conditions. This section summarizes site conditions that are fully described in the Mission Bay Environmental Impact Report.

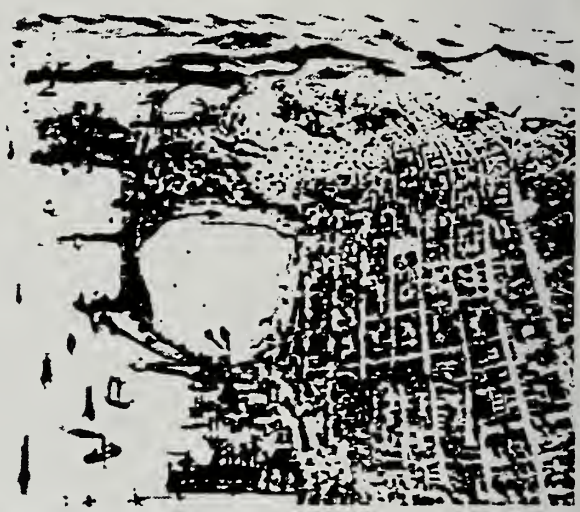
SITE HISTORY

Mission Bay was originally a shallow bay of about 260 acres, ringed by an equally extensive swamp. As recently as the 1850's, the Bay and swamp were hospitable vegetative environments for a variety of birds and animals. The Bay and Mission Creek were navigable, supporting a water taxi service which crossed the Bay and took passengers up Mission Creek to Mission Dolores. The Bay was primarily comprised of water lots owned by numerous private individuals; the remainder had been claimed by the City of San Francisco. The shoreline was colonized by several enterprises, among them the manufacturers of brick who made their product from the local bay clay.

In the 1860's, the Southern Pacific and Western Pacific Railroads were each granted thirty (30) acres of tidelands. Around 1865, Long Bridge, a low-lying wooden structure, was built above Bay waters on 100,000 cubic yards of rock fill. Long Bridge extended from near Fourth and Brannan Streets (Steamboat Point) south to near Third and Mariposa Streets (Point of Rocks) and accommodated railroad vehicles, streetcars and foot traffic. Extending easterly from the bridge was a deeper water cattle wharf, 300 feet wide and 100 feet long.

Although Long Bridge was intended as a transportation link between downtown and factories planned to the south, these factories were not built and Long Bridge became a major recreation site. People gravitated to this sunny location to enjoy restaurants, a bath house and a saloon built on piles along the edge of the bridge. The San Francisco Yacht Club was located here and held its first regatta nearby. Two rowing clubs on the bridge accommodated other sports enthusiasts. In addition, there was good rock cod fishing from the pier and productive oyster beds lay inside the Bay.

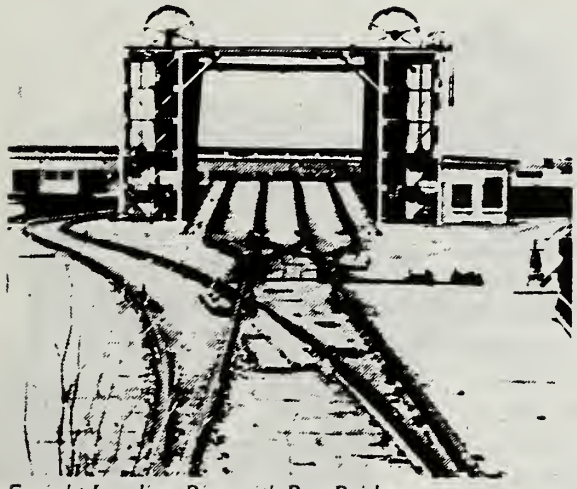
The first Southern Pacific terminals and warehouses were built in the bay area by 1876. Sixth Street was extended into the original bay and the city dump was located at its end by 1882. As



Mission Bay, circa 1850

Hay Scows in the Channel (National Maritime Museum)

Channel Activities



Freight Loading Pier with Bay Bridge

Historic Pier 50

many as 300 teams of horsedrawn drays arrived daily at what was soon called Dumpsville. From Channel Street, the northern edge of the bay, other finger piers extended into the Bay. Dumping was accompanied by Mission Bay's use as a sewer. Over half the sewage of the City in the late 1800's flowed into Mission Bay, where it ebbed and flowed with the tides. It was said that:"At the end of Third Street there was a narrow waterway, officially named Mission Creek, but I never heard it called by such a refined title. It was an open sewer, a cesspool that emitted offensive odors, especially at low water. Great bubbles of gas broke the surface. Here was a creek the consistency of mud; the flow of the tide did not materially affect it. We knew what the contents of the creek were!"[2]

Despite the cesspool-quality water in the Channel, it was one of the busiest waterfront areas until the early 1920's. Active lumber and millyards, supplying a boom in city growth, received lumber from the Pacific Northwest. Shipyards along the Channel edge built wooden freighters, steam schooners and double-ended ferries. Most of the southern side of the Channel was occupied by a hay dock visited by flat-bottomed, gaff-rigged hay scows from the Sacramento River Delta. Banana shipments were unloaded along the Channel edge next to today's Banana Triangle, between Third and Fourth Streets.

Mission Bay has been gradually filled to accommodate these many activities. Tons of rock and debris came from hills leveled to make way for workers' housing on Potrero Hill and from South of Market, Rincon Hill, Nob Hill and Downtown. Dumping and filling occurred to permit construction of plank roads into the Mission District. The filling was completed after the earthquake in 1906, when Southern Pacific extended rail spur tracks into the demolished downtown and removed rubble from the redeveloping business district using Mission Bay as a dumping ground. Pier 54 was built in 1909; the other adjacent Piers 48, 50 and 64 were built in the early 1920's for general cargo handling. Pier 50 was extended so that the pier structure covers Mission Rock.

2. Vanished Waters. A History of San Francisco's Mission Bay provides a complete description of earlier Mission Bay conditions and events.

SITE DESCRIPTION

The two major landowners are Santa Fe Pacific Realty Corporation (Project Sponsor) and the City and County of San Francisco including the Port. Land ownership or control is approximately as follows: Project Sponsor - 169.3 acres; City and County of San Francisco - ~~144.5~~ acres (of which 87 acres are streets); and other owners - 1.9 acres. Approximately 12.5 acres of the City land are occupied by China Basin Channel. The plan area is now primarily within an M-2 (Heavy Industrial) Use District with Height Districts ranging from 40 to 200 feet (see Figure 1).

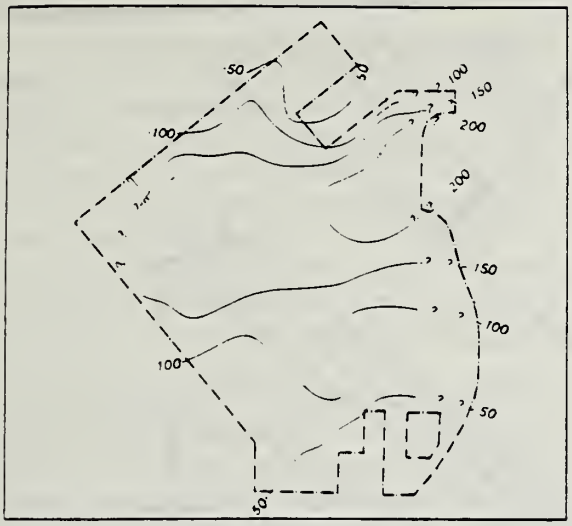
Third Street Through Mission Bay

Surrounding Land Uses

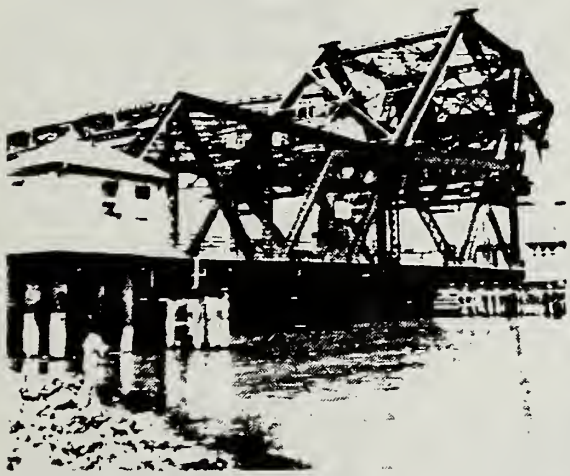
North and northeast of the plan area is the South of Market area where an office, service, sales and light-industrial base continues with some new housing and mixed retail. To the west is Showplace Square, a center of design and showroom activity. To the southwest is North Potrero, an older industrial area that is evolving into a district dominated by manufacturing and transportation-related businesses. South of Mariposa Street to the southwest and overlooking Mission Bay is Potrero Hill, primarily a residential area with a high degree of homeownership. It is separated from Mission Bay by I-280, the Southern Pacific railroad tracks and a strip of industrial uses. East of I-280 and south of the plan area is Lower Potrero, an industrial area adjacent to the plan area and a housing area further south. To the south and east is the Central Bayfront, containing maritime and industrial businesses as well as a major clothing store. The Central Bayfront includes Piers 48 through 64, associated seawall lots, a public boat ramp south of Pier 50 and Agua Vista Park, all of which border the east side of Mission Bay. Operations at these adjacent piers include off-loading and storage of bulk cargo and ship repair. In addition, several restaurants are located along the waterfront edge.

Waterfront Restaurants

China Basin Channel



Bedrock


Lefty O'Doul Bridge

China Basin Building

Physical Site Conditions

Originally an extensive and shallow 260-acre bay, the Mission Bay site is primarily landfill comprised of refuse, debris hauled to the site after the 1906 earthquake and fire, and highly variable mixtures of fill, over bay mud. The placement of fill and grading of the surface have left a mostly flat surface. The subsurface conditions are a complex bedrock of ancient compacted ocean flow materials. Depth to bedrock varies from about 45 to 210 feet. Because of the depth to bedrock and the unengineered quality of the artificial fill and bay mud, areal and differential settlement (between 2-12 inches) can be expected. Like most other bayfront sites, well-designed engineering solutions are required for site preparation and construction of structures and streets in the plan area.

Historically, fresh water from springs along Mission Creek and nearby Rincon Hill drained into Mission Bay creating brackish surface waters. Since that time, however, fill, dredging, shipping activities, and wastewater discharges and overflows have degraded site water quality. Runoff currently occurs on site when rainfall runs off impermeable surfaces; it is collected in City storm drains.

Former marsh and bayland plants in the plan area have been almost completely altered or eliminated by filling and industrial development. Existing terrestrial vegetation is restricted to weeds on vacant lands. No natural (i.e., native) upland vegetation and limited natural waterway vegetation exist. Isolated ornamental plantings occur near the Channel. No federal- or state-listed rare or endangered plants are known to exist in the plan area.

China Basin Channel is tidal, with a tidal range of about 6.3 feet. The volume of water moved in and out during a mean tidal cycle provides good tidal circulation, even though the Channel is a dead-end and the west end is shallow. The Channel is not currently regularly dredged.

China Basin Channel is used by a variety of shore birds and water fowl. Many are migratory and use the area for resting periods of short duration. The

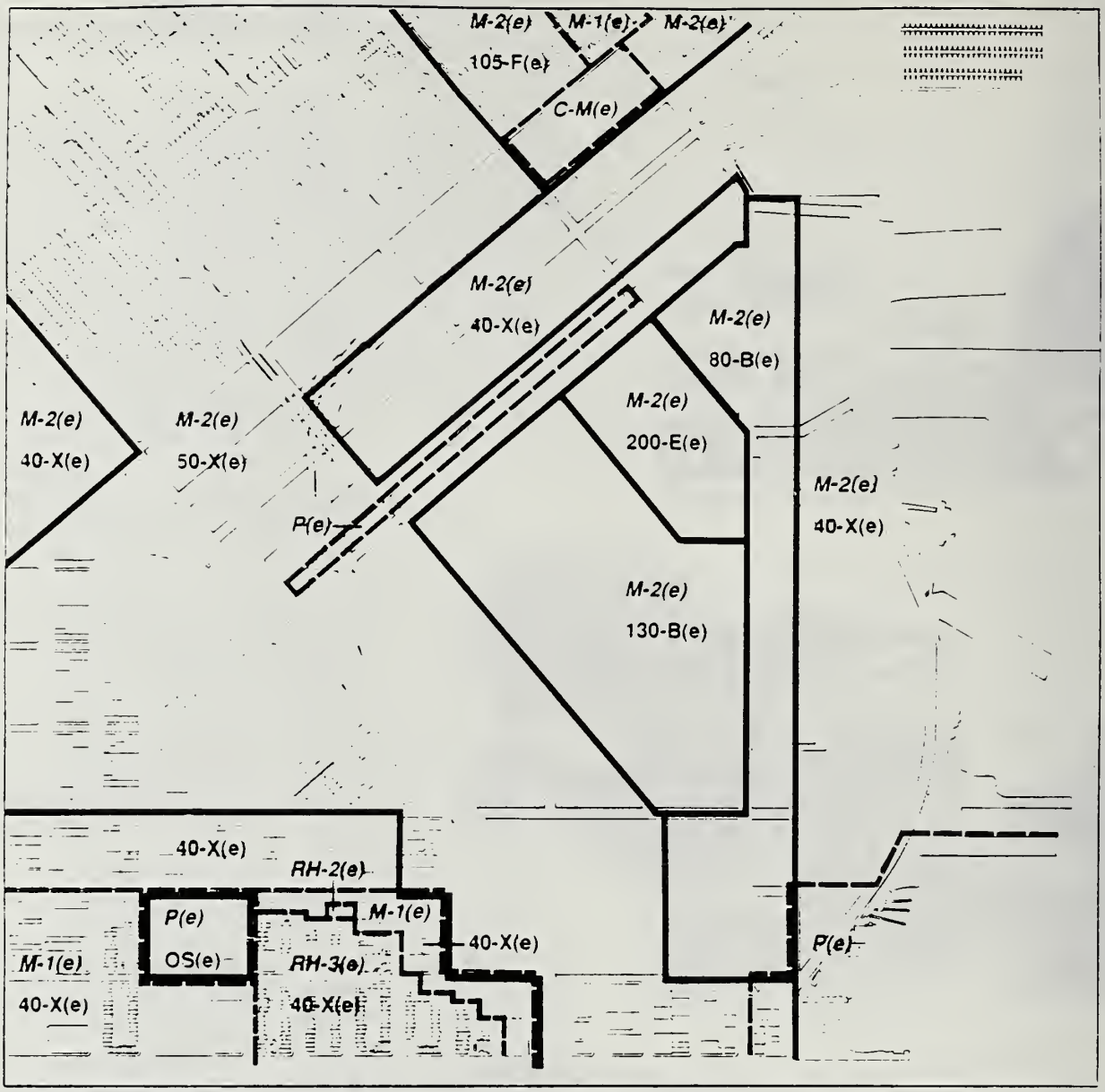


Figure 1: Existing Zoning and Height Districts

Zoning Districts

C-M	Heavy Commercial	*RH-2*	Residential, House: Two Family
M-1	Light Industrial	*RH-3*	Residential, House: Three Family
M-2	Heavy Industrial	*P*	Public Use
		(e)	Existing Use District

Height and Bulk Districts

Numbers indicate height limits in feet. Letters indicate bulk limits as follows:

Letter	Height above which Maximum Dimensions Apply	Maximum Building Length	Maximum Diagonal Dimension
A	40	110	125
B	50	110	125
C	80	110	125
F	80	110	140
X	Bulk Limits Not Applicable		
OS	See City Planning Code Section 290	(e)	Existing Height and Bulk District

Note: The Zoning Districts indicated are the existing designations as defined in City Planning Code Article 2. The Height and Bulk Districts characterizations indicated in the plan area reflect districts defined in Article 2.5 of the City Planning Code.

lack of suitable habitat renders the plan area unlikely for any breeding use. Similarly, the lack of suitable cover and food resources limit the variety of terrestrial animals to species commonly found in industrialized areas such as mice, gophers, dogs and cats. The fish and bottom-dwelling populations in the Channel appear to be reduced in number and species compared with bayward populations. Harbor seals are regular visitors to the outer reaches of China Basin Channel.

No archaeological resources have been identified on the site but there may be cultural or historic artifacts on the site, in six potential locations. Several buildings or structures possess potential historic significance, notably, the Third Street and Fourth Street open-span bascule bridges and the closed historic Fire Station 30 at Third and Mission Rock Streets. The Third Street "Lefty O'Doul" Bridge was designed by Joseph B. Strauss, chief engineer for the Golden Gate Bridge and completed in 1933. It has been designated by the San Francisco Board of Supervisors as a local historic landmark. The Fourth Street "Peter Maloney" Bridge was built by 1933 as well. The nearby China Basin Building, built in 1922 for the Del Monte Cannery Company, used rail siding parallel to the Channel which is now a long wooden deck.

Existing Land Use

Existing land use in Mission Bay is summarized in Table 2-1: Mission Bay Building Space and Land Area. Transportation-related activities occupy the most acreage, including buildings, rail lines and rail yards. Other major uses include wholesale, distribution and warehousing, sand and gravel operations, as well as vehicular or equipment storage. In addition, there is a houseboat and

Table 2-1

Mission Bay Building Space and Land Area Used by Businesses By Business Activity, 1985[a] (Thousand of Gross Square Feet)

Business Activity	Building Space	Percent of Total Building Space	Land Area	Percent of Total Land Area
Transportation & Related Services[b]	822	53	1,551	46
Wholesale/Distribution/Warehouse	435	28	101	3
Vehicle/Equipment Storage	73	5	897	27
Manufacturing/Construction	86	6	289	9
Office	32	2	--	--
Retail/Restaurant	51	3	188	6
Arts/Design	6	1	--	--
Other[c]	30	2	320	9
TOTAL	1,535	100%	3,346	100%

[a] Land area represents land, exclusive of buildings, used by businesses in the plan area.
[b] Includes land and some buildings used by the commuter-rail operation.
[c] Includes buildings and associated land area for the City fire station facility, San Francisco Recreational Vehicle Park, and Channel Street Pump Station.

SOURCE: Recht Hausrath & Associates, Mission Bay Environmental Impact Report

sailboat community of about 55 boats residing in China Basin Channel. While relatively undeveloped and underutilized, the plan area still functions as a distribution site because it is accessible from other San Francisco sites, the Peninsula and the East Bay.

The plan area has no improved open space except the informally landscaped southern edge of China Basin Channel, maintained by the Mission Creek Harbor Association.

Existing Public Services

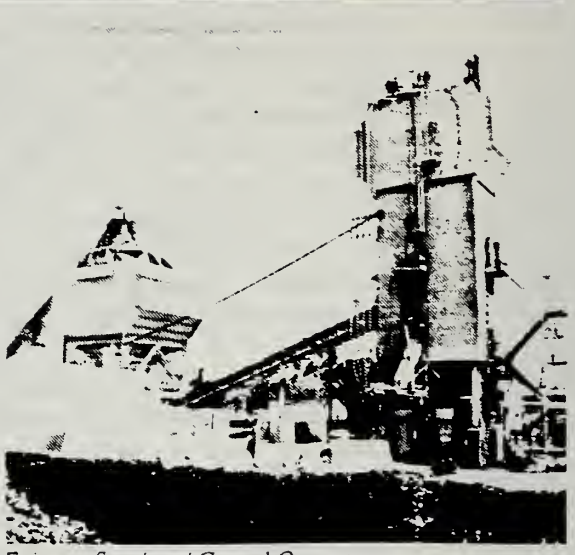
Existing public services to the plan area include fire and police protection, schools, recreation and parks, libraries, public health, water supply, sewers and wastewater treatment, solid waste disposal and streets maintenance.

Fire services are provided from stations in Lower Potrero and Potrero Hill. Mission Bay is served by the Southern District Police Station (at the Hall of Justice) and the Potrero District Police Station (at 2300 Third Street). Public primary and secondary education can be provided by the San Francisco Unified School District.

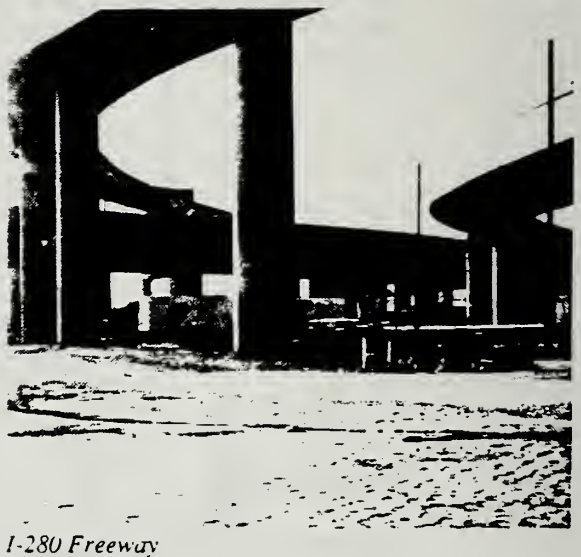
The nearest library is the Potrero Branch at 1616 20th Street. Public health programs for Mission Bay are offered from the nearest District Health Center, at 1350 17th Street. These services include emergency medical, environmental health, community mental health and other health care services.

REGIONAL TRANSPORTATION CONNECTIONS

Mission Bay has direct regional access via I-280; arterial streets leading to I-80, I-280 and U.S. 101; CalTrain (Peninsula Commute service) and the San Francisco Municipal Railway (MUNI) buses connecting to regional transit terminals in downtown San Francisco. Figure 2 shows the major regional highway and transit routes and facilities within and near Mission Bay.



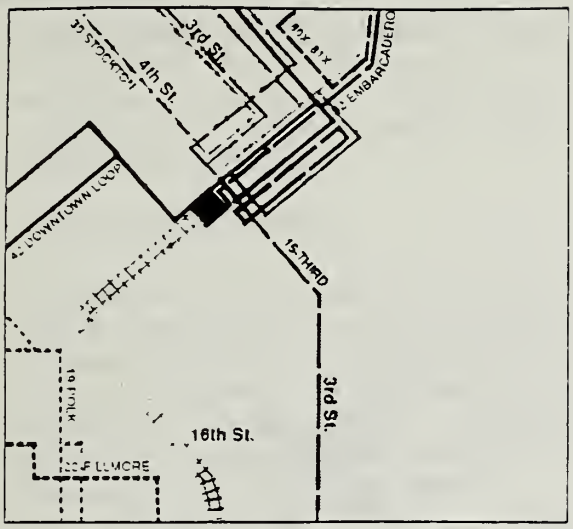
Existing Sand and Gravel Operations



I-280 Freeway

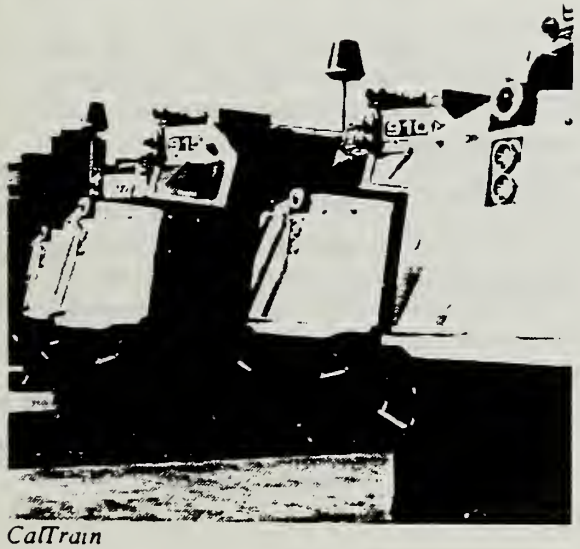
EXISTING STREETS

The existing limited roadway network in and around Mission Bay is also shown in Figure 2. The elevated portion of I-280 extends from Mariposa Street north above Seventh Street to the Channel where it turns east, over 10 acres of land between Sixth and Third Streets. All north-south streets, Third, Fourth, Fifth and Seventh Streets extend from the South of Market area into Mission Bay. Only Third and Fourth Streets cross the Channel, via two drawbridges. A bridge tender is on-duty 24 hours a day because the bridges may be opened by appointment for boats at any time.



Existing Transit Services

MUNI Bus Service



CalTrain

Townsend Street forms the plan's northern edge and connects it with the Showplace Square area to the west. North of the Channel in the plan area, there are two other functioning east-west streets: King Street and Berry Street.

South of the Channel, there are several streets connecting the plan area with surrounding residential or industrial neighborhoods to the west and south. Third Street is the major north/south arterial, providing two-way operation across four lanes. Sixteenth Street is a major east/west arterial connecting the southern part of the plan area to the Upper Market, Inner Mission, Potrero Hill, and Showplace Square areas. Its roadway width varies from two to four lanes. Other minor streets provide access to the plan area primarily for immediate local-area trips (i.e., their utility for regional service is limited).

China Basin Street runs parallel to the Bay shoreline between Third/Channel and Mariposa Streets. It is also connected to Third Street via Mission Rock and Sixteenth Streets.

PUBLIC TRANSIT

MUNI offers service to the plan area on the following routes: 15-Third, 30-Stockton, 32-Embarcadero, 42-Downtown Loop, 76-Marin Headlands, 80X-Gateway Express, and 81-X Financial District (CalTrain) Express (see Existing Transit Services Figure). Except for the 15-Third, which circulates through the plan area on Third Street, all these routes currently terminate at the CalTrain terminal at Fourth and Townsend Streets. All routes connect the CalTrain Station with one or more regional transit terminals or stations in downtown San Francisco. The CalTrain serves Peninsula commuters on tracks extending over 17 acres between Fourth, Sixth, Townsend and King Streets. At Seventh Street, the trackage turns south and runs under the I-280 elevated freeway, parallel to Seventh Street.

EXISTING PARKING

On-street and off-street parking spaces are available in Mission Bay. There are an estimated 1,600 on-street spaces. The plan area presently contains two public parking lots, offering 729

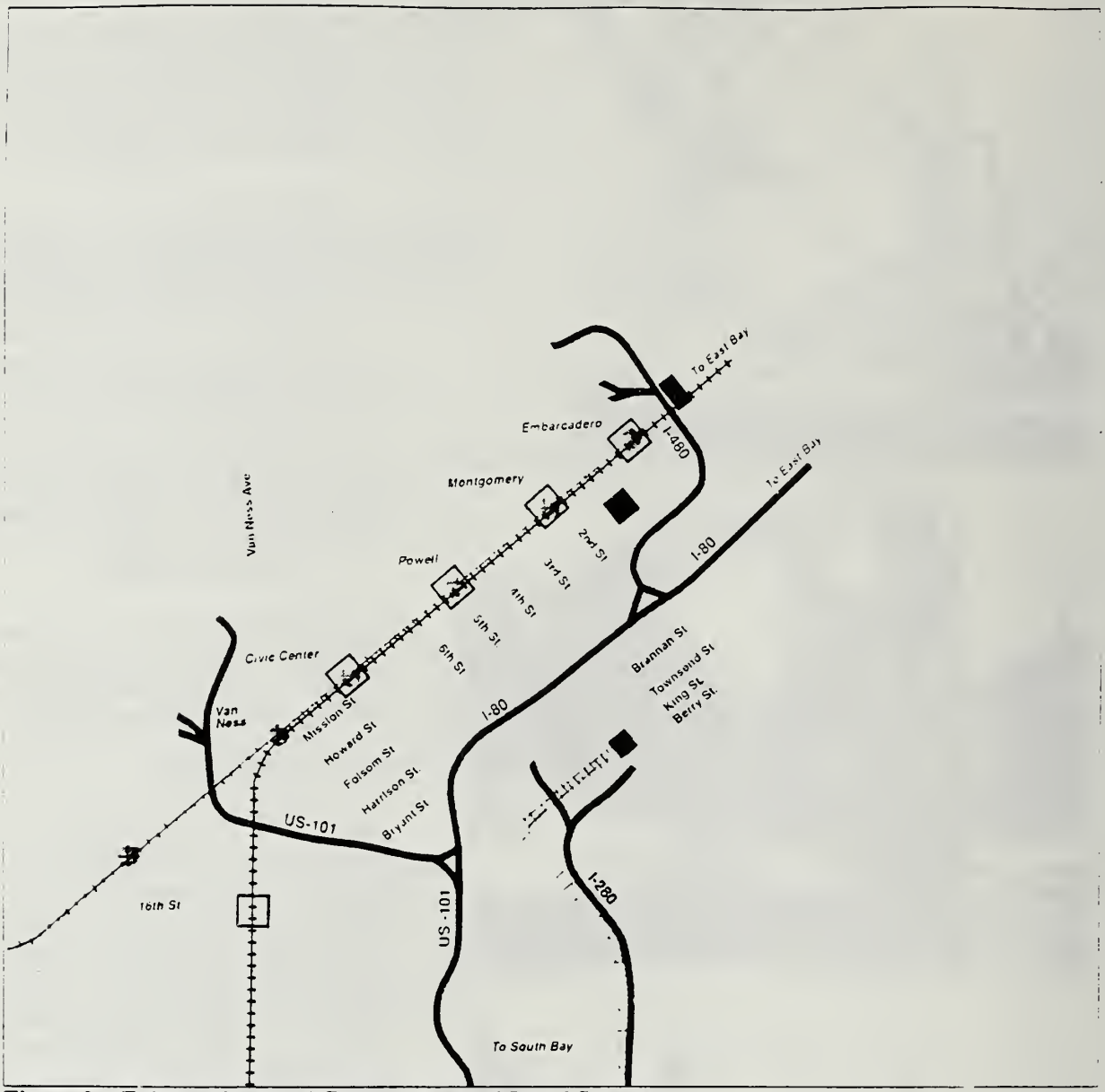


Figure 2: Existing Regional Connections and Local Streets

- Mission Bay Boundary
- BART Route and Station
- CalTrain Route and Station
- MUNI Metro Route and Station
- Ferry Building
- Transbay Transit Terminal
- Freeways

Freeway/Direction	On-Ramp	Off-Ramp
I-80/Eastbound	Fifth and Bryant	Fourth and Bryant
	Eighth and Bryant	Seventh and Bryant
I-80/Westbound	Fourth and Harrison	Fifth and Harrison
	Seventh and Harrison	Eighth and Harrison
I-280	Sixth and Brannan	Fourth and Berry
	Mariposa and Pennsylvania	Sixth and Brannan
	Mariposa and Indiana	

SOURCE: Barton-Aschman Associates, Inc., Mission Bay Environmental Impact Report

spaces. The number of lots and spaces fluctuates with business needs in the plan area. Unauthorized or uncontrolled parking occurs throughout the plan area on vacant or underdeveloped lots and streets.

RAIL FREIGHT LINES

The Southern Pacific Transportation Company (SP); the Atchison Topeka and Santa Fe Railway Company (ATSF); and the San Francisco Belt Railroad own tracks in the vicinity of the plan area. Existing rail trackage is depicted in ~~Figure 4.~~ Figure 3 Some of the following yards or tracks are abandoned and will be removed or rerouted.

Three SP lead tracks remain in operation. The first lead track serves the Showplace Square area and Eighteenth and Harrison areas. The second lead track serves Piers 30, 32 and the Belt Railroad Interchange Yard at King and The Embarcadero. The third lead track serves the ATSF-SP Interchange Yard, north of Sixteenth and east of Third Streets, and Piers 48, 50 and 54.

ATSF's two rail yards in the plan area are east of Third Street. The ATSF-SP Interchange Yard is in Illinois Street between El Dorado and Fourth Streets. ATSF's China Basin Yard is bounded by China Basin, Mission Rock and Illinois Streets. ATSF's use of both yards and Pier 52 has declined to the point where a yard crew is transported from Richmond when required, instead of being assigned permanently to San Francisco.

The San Francisco Belt Railroad (Belt Line) operated by Kyle Railways for the Port of San Francisco serves businesses and piers under the Port's jurisdiction. The Belt Line provides rail service between port facilities and intercity rail carriers whose tracks do not serve the piers directly, including Piers 48, 50 and 54. ~~Access to the Northern Waterfront piers is provided by a lead track from the SP mainline track that connects with Belt Line tracks near The Embarcadero at King Street. The San Francisco Belt Railroad also serves Piers 48, 50 and 54. Since 1979, freight cars have served only the adjacent Mission Rock Terminal on Pier 50.~~

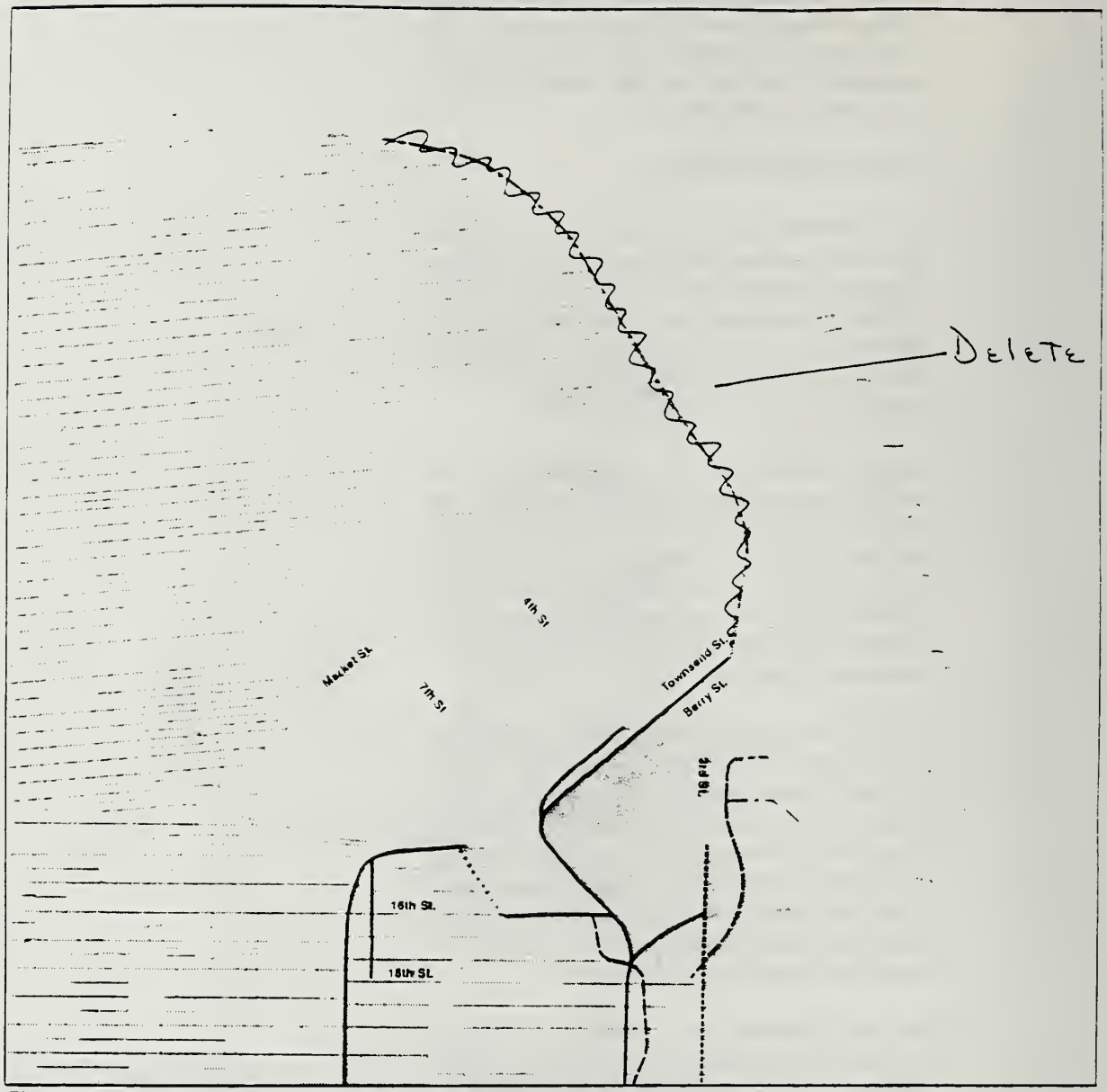


Figure 3: Rail Freight Facilities in and Near the Plan Area

Mission Bay Boundary

SP

ATSF/SP

ATSF

WP

Belt Line

Existing Utilities

There is presently water, sewer, storm drainage, solid waste, gas, electric and telecommunications service to the plan area, sized to meet the needs of existing uses. All existing major utility systems are mapped on Figure 4. Water is supplied to the plan area from the University Mound Reservoir of the San Francisco Water Department. The low-pressure water system supplies day-to-day water supply for residential and business uses, via a system of pipes generally within the street rights-of-way. A high-pressure system parallels the low-pressure system to provide necessary fire flow pressure and volume.

Mission Bay's wastewater facilities are part of the San Francisco Department of Public Works Clean Water Program. Its Southeast Plant treats dry and wet weather flows from this area and its North Point plant operates as a back-up facility in wet weather. Wastewater flows into the China Basin Channel area from a large drainage basin originating on the east slopes of Twin Peaks. In addition, box culverts running parallel to the Channel carry sewage from the north and south. When their capacity is exceeded, the sewage overflows into the Channel at seven points. The City holds a permit for the level of non-attainment of water quality standards that occurs here. In the past, forty or more overflows occurred annually. About ten overflow events have been recorded in the past few years due to recent improvements. The majority of the sewer and stormwater mains in Mission Bay are about 70 to 80 years old and will require upgrading to handle more intensive development here.

Two private collection companies provide solid waste disposal services in Mission Bay: the Golden Gate Disposal Company north of the Channel, and the Sunset Scavenger Company south of the Channel. The scavenger companies do not collect toxic or hazardous waste (Class I) materials.

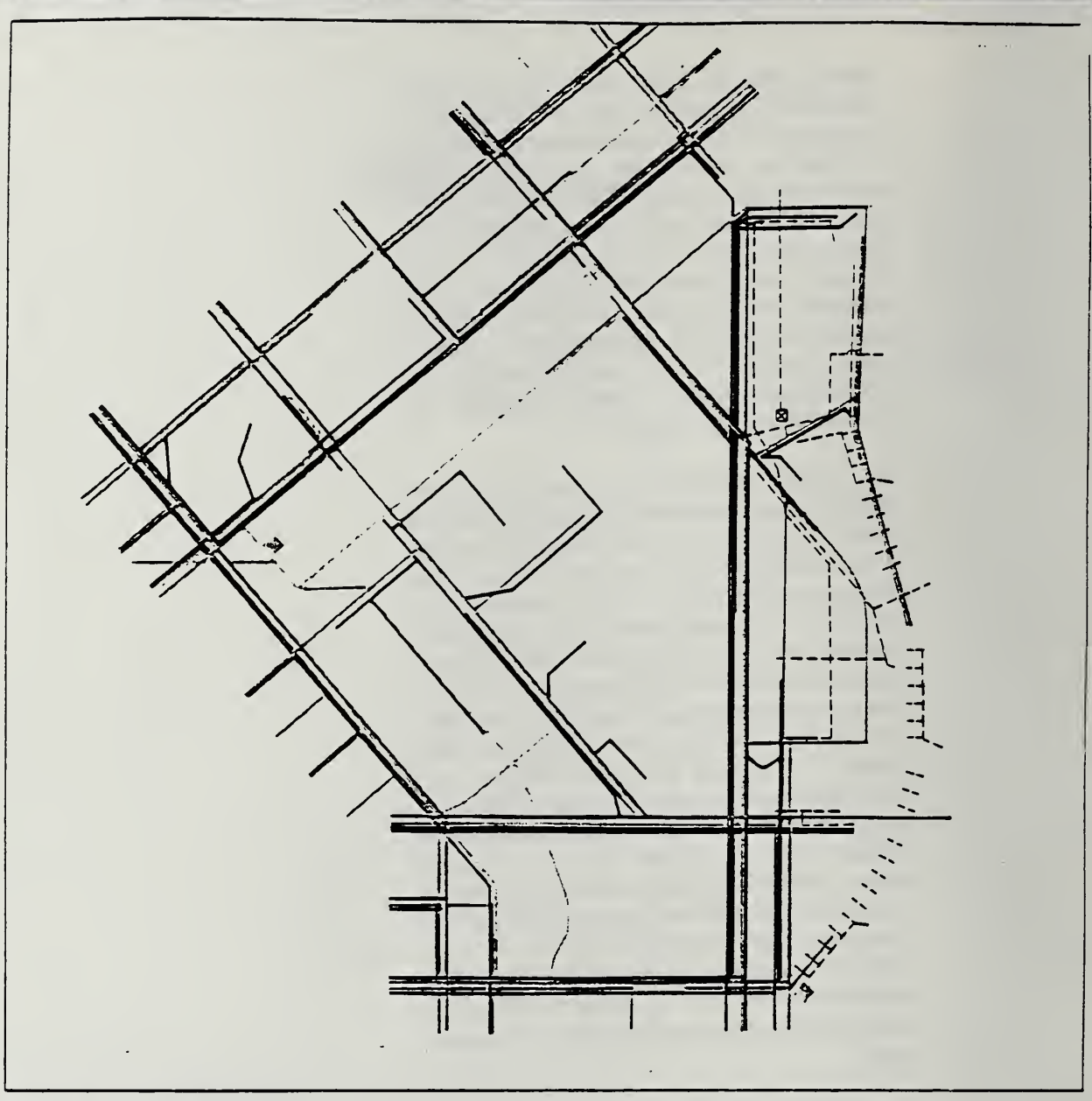


Figure 4: Existing Utilities,

High Pressure Water

Low Pressure Water

Overhead Electric

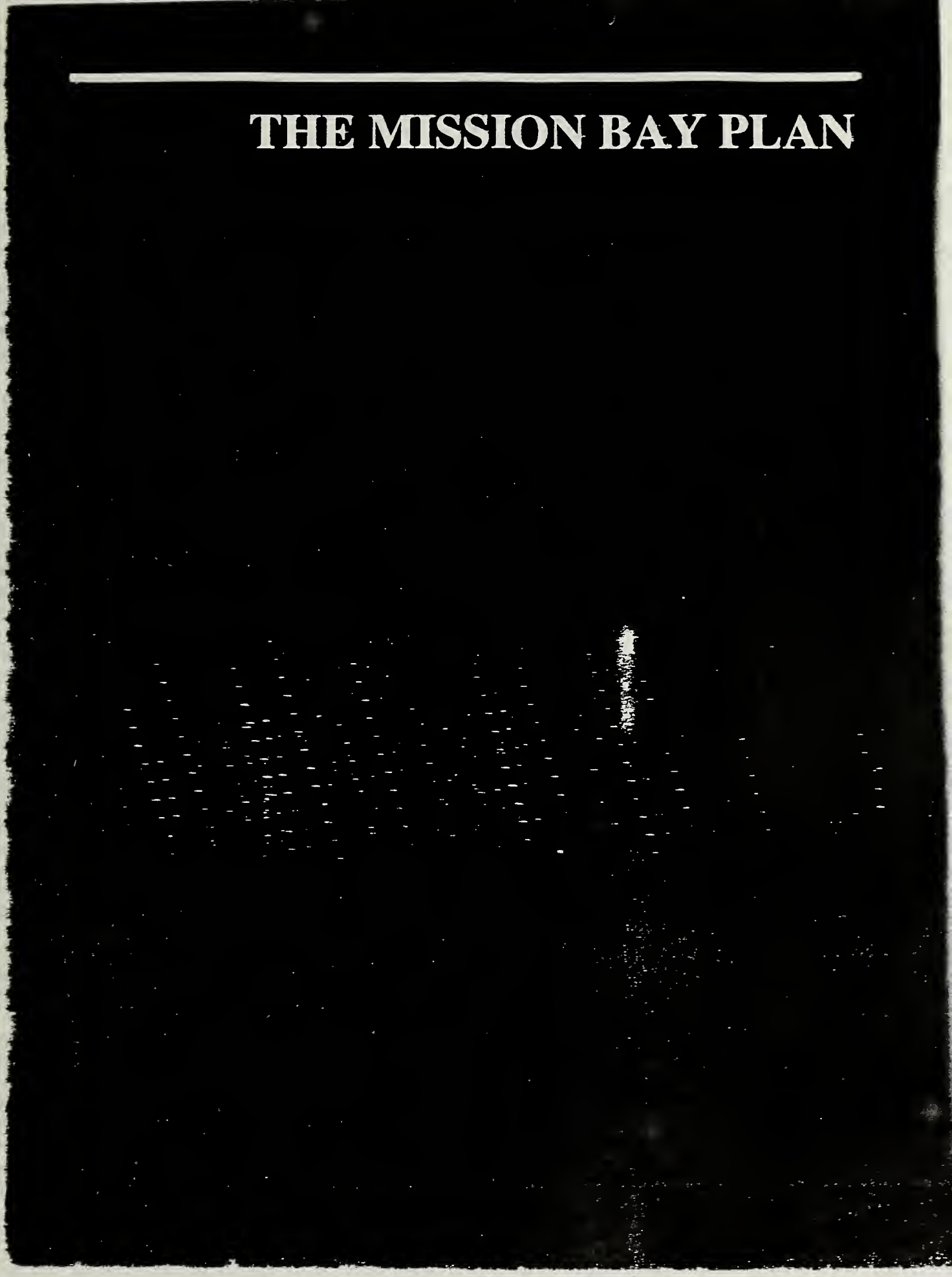
Underground Electric

Gas

Combined Sewer and Pump Station

Port Authority Combined Sewer & Pump Station

THE MISSION BAY PLAN



The Mission Bay Plan

This section describes the Mission Bay Plan, its program, character and specific land uses. It begins with a summary of the land use and development program. The urban design principles upon which the overall plan is based are then described, followed by objectives and policies organized by type of land use. Associated text describes in detail how and where the objectives and policies will be fulfilled. The complete design guidelines for development of each land use conclude each section, defining how development should be designed.

OVERALL LAND USE AND DEVELOPMENT PROGRAM

Mission Bay will be a highly urban, mixed-use neighborhood as the Land Use Plan (Figure ~~6~~ 5) shows. Integrated in the City's street system and open space network, it will add about ~~8,000~~ new 8,270 housing units to the City's housing supply, 4.8 million square feet of office space and 900,000 square feet of commercial-light industrial as Table 3-1 shows. In addition, there will be about 68 ~~to 71~~ acres of public open space and parks and 14 7370 ~~7,100~~ units are clustered within an open space system that creates play areas and opportunities for pedestrian circulation. Integrated with market rate housing, affordable units will share the same neighborhood amenities as the more expensive housing units. Higher density housing, about 900 units, is located between Berry Street and the China Basin Channel.

public acres for ~~community~~ facilities including a school, fire and police stations, and recreation and cultural centers. Small and large scale retail of about 750,000 ~~735,000~~ square feet will be located on a neighborhood shopping street and on Third Street, a city-serving thoroughfare. A new hotel with 500 rooms can be built along China Basin Channel. The plan ~~area will also~~ include 5 an area for a sports/entertainment arena or other public facilities and another site for a MUNI Metro storage and maintenance yard.

OBJECTIVE 1: CREATE A VARIETY OF USES IN MISSION BAY WITH HOUSING AS A HIGH PRIORITY.

Policy 1: Provide new housing in areas most suitable for residential occupancy.

Policy 2: Phase proportional increments of housing and commercial uses and balance development with open space.

Policy 3: Integrate retail and personal services into commercial and industrial areas and provide cultural facilities to serve Mission Bay businesses, residents and working populations.

Policy 4: Provide mixed-use developments at appropriate locations.

Policy 5: Distribute open space throughout the plan area to complement other land uses.

Policy 6: Provide for a variety of uses at the water's edge to enhance the viability and aesthetic quality of adjacent land uses while providing maximum access to and use of the shoreline.

Policy 7: Provide adjacent uses that enliven and activate public open space.

Mission Bay housing is aggregated to create a strong sense of neighborhood along quieter, residential streets. South of the Channel, up to

There will be two locations for offices and commercial-light industrial activities, both within walking distance of Mission Bay residences. In the six large blocks on either side of King Street, office buildings with ground floor retail and various forms of open space will be built. Directly on King Street, these workplaces will be easily accessible by MUNI Metro, MUNI bus, CalTrain and private automobiles. Along Owens Street, commercial-light industrial uses will be developed next to the CalTrain, MUNI Metro and Interstate

TABLE 3-1 (REVISED)

MISSION BAY LAND DEVELOPMENT PROGRAM

LAND USE	AMOUNT	ACREAGE
Housing and Live Work Unit Total	8,270 units*	100.0 acres
City of S.F. - Affordable Housing Units	2,300 housing units	25.8 acres
Catellus and Other - Affordable and Market Rate Housing Units	5,970 housing units (including 100 live work units)	74.2 acres
Office Total	4,800,000 sq. ft.	25.4 acres
Commercial - Light Industrial Total	900,000 sq. ft.	7.5 acres
Retail Total	750,000 sq. ft. (including 100,000 sq. ft. large scale retail)	
Large Scale Retail		4.2 acres
Community/Cultural Facilities Total a school site, cultural center, recreation center, police and fire station, other public facilities		14.6 acres
Hotel Total	400,000 sq. ft. (500 rooms)	2.3 acres
Major Open Spaces Total		63.2 acres
Major parks; plazas; recreation facilities		
China Basin Channel		50.7 acres
Internal to Office, and Comm-Light Ind;**		12.5 acres
Required Mini-Parks**		4.1 acres
Open Space Total		0.6 acres
	67.9 acres	
Infrastructure & Miscellaneous Total		96.1 acres
Streets and Sidewalks including Designated Mid-Block Lanes		75.2 acres
I-280/CalTrain Station		
Channel Pump Station		9.4 acres
MUNI Metro East Yard and turn back tracks		1.4 acres
		10.1 acres
GRAND TOTAL		**313.3 ACRES**

* Plus 250 off-site dwelling units
** Residential and office mid-block lanes counted in residential and office areas.

Note: Acreages are approximate

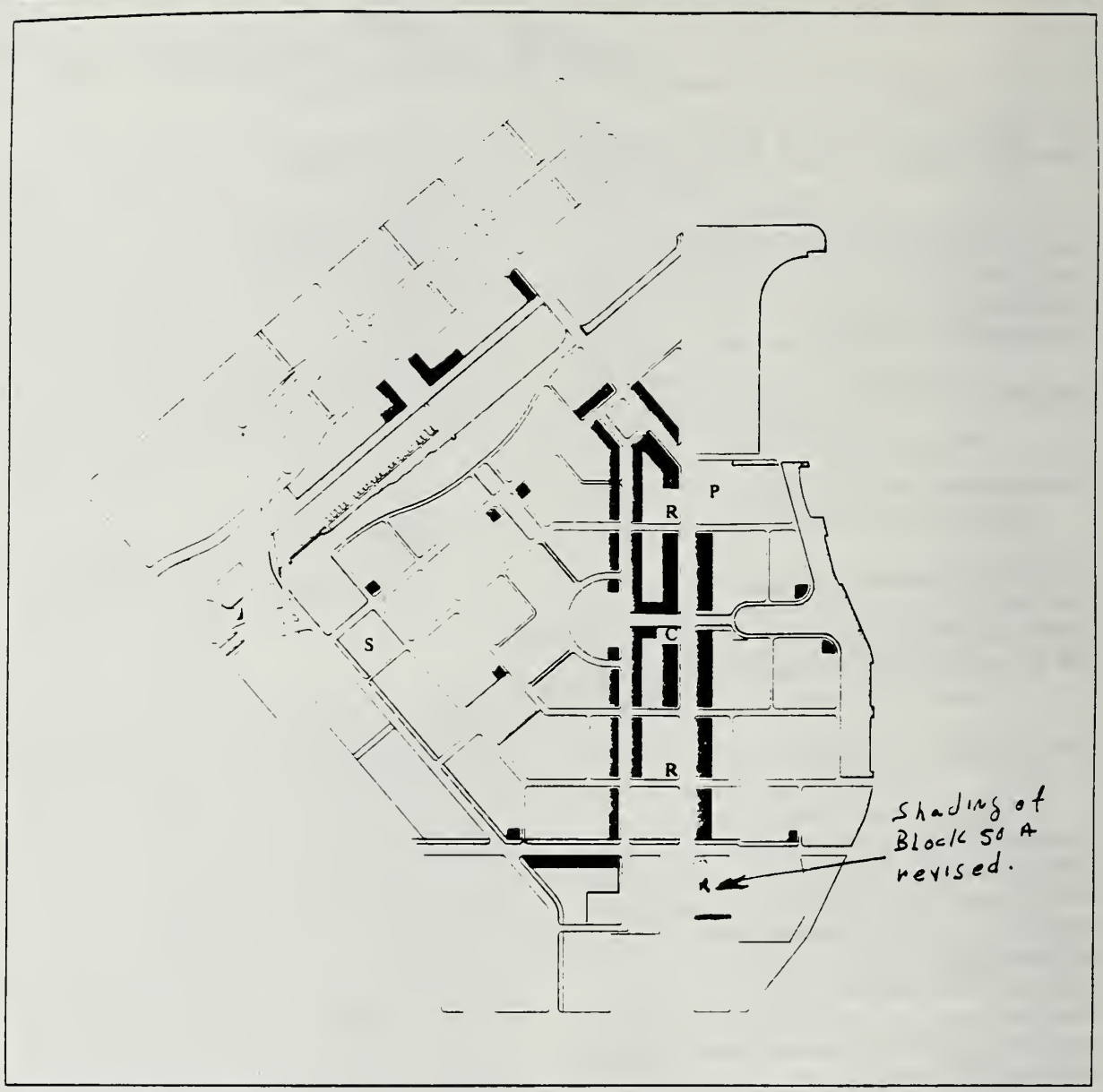


Figure 5: Land Use Plan

Residential

- Residential

Commercial

- Office
- Commercial-Light Industrial
- Retail-Residential
- Retail
- Hotel

Community Facilities

- S — Public School
- P — Police, Fire and Recreation
- C — Cultural Center/Theater
- R — Community Facilities/Retail/Reside
- Other

Open Space

- Open Space

280 corridor. These buildings will have good access to truck routes and regional freeways.

~~More than~~ About sixty-eight (68) acres of open space are to be provided throughout Mission Bay. Open space will take many forms: expansive public plazas and waterfront greenbelts, neighborhood parks, playfields, quiet lanes, podium-level terraces and a network of pedestrian and jogging trails. It is configured to provide open space as close to each household as possible. The Plan establishes internal local serving parks and on the perimeter of the neighborhood public expanses for citywide and regional enjoyment.

wetlands,

Maximum public access is to be provided to both China Basin Channel and San Francisco Bay through the provision of public open space along all shorelines and by allowing for compatible adjacent land uses. Streets will be designed and landscaped as pleasant corridors for walking and other forms of circulation and social interaction.

In and around these major land uses, retail and community facilities will be developed. At the heart of the neighborhood, Long Bridge Street is to function as a local-serving retail street and an animated pedestrian environment. On Third Street, larger retail establishments and offices will occupy the lower floors of residential buildings. Community facilities are to be within mixed-use buildings on Third Street with the cultural center occupying a prime public site on Long Bridge Plaza, a place for indoor and outdoor gatherings or events. All such facilities will be readily accessible for the physically disabled.

Large parks, recreation centers and ballfields, all to be used by citywide residents, are located on the perimeter of the residential heart of Mission Bay. These activities, which attract many people and cars and can increase noise levels and congestion, will be located to have the least impact on the quiet, more private character of Mission Bay's residential streets and on the necessary functions of commercial and industrial activities. This will allow the City to share Mission Bay's amenities without intruding on the quieter residential neighborhood.

Townsend Street

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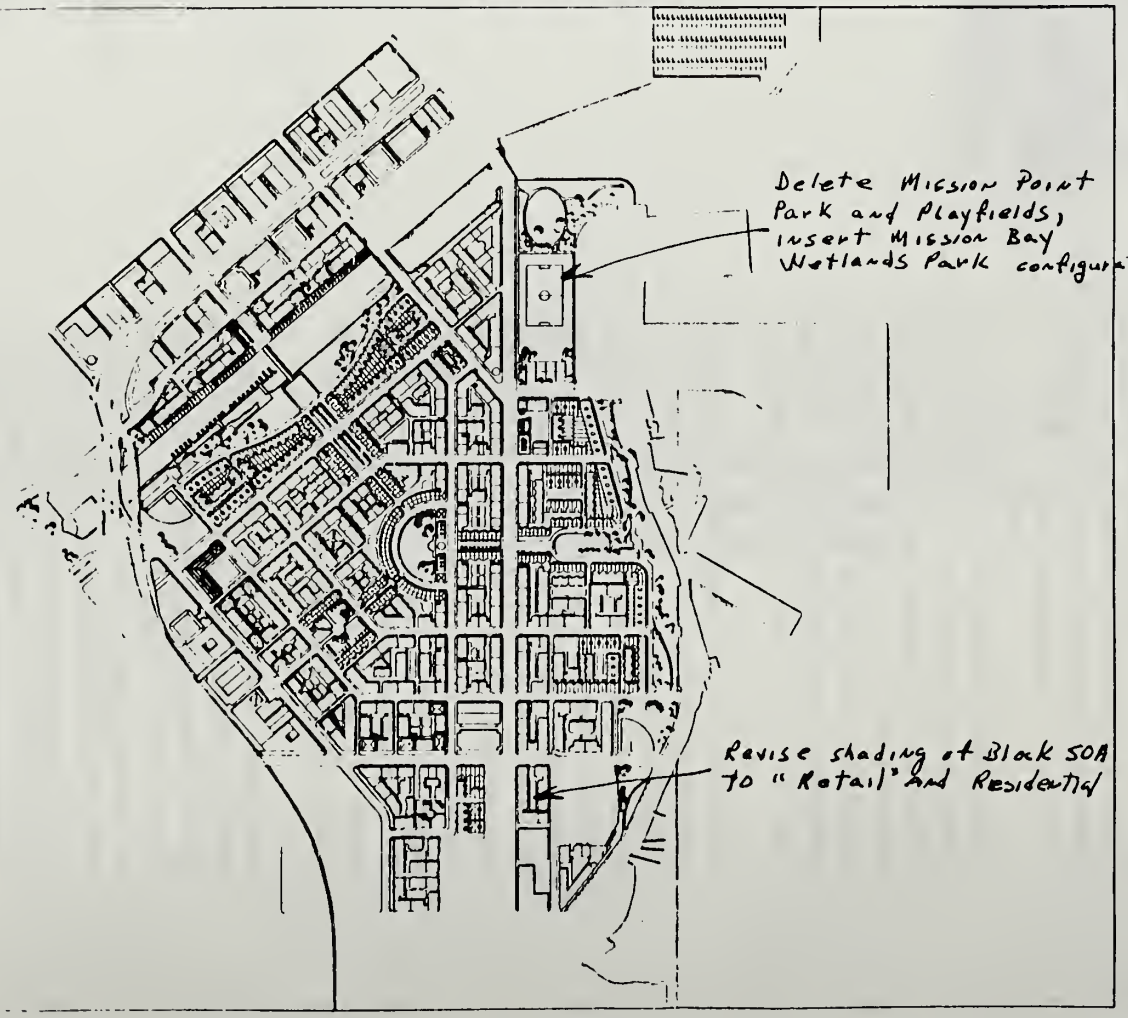
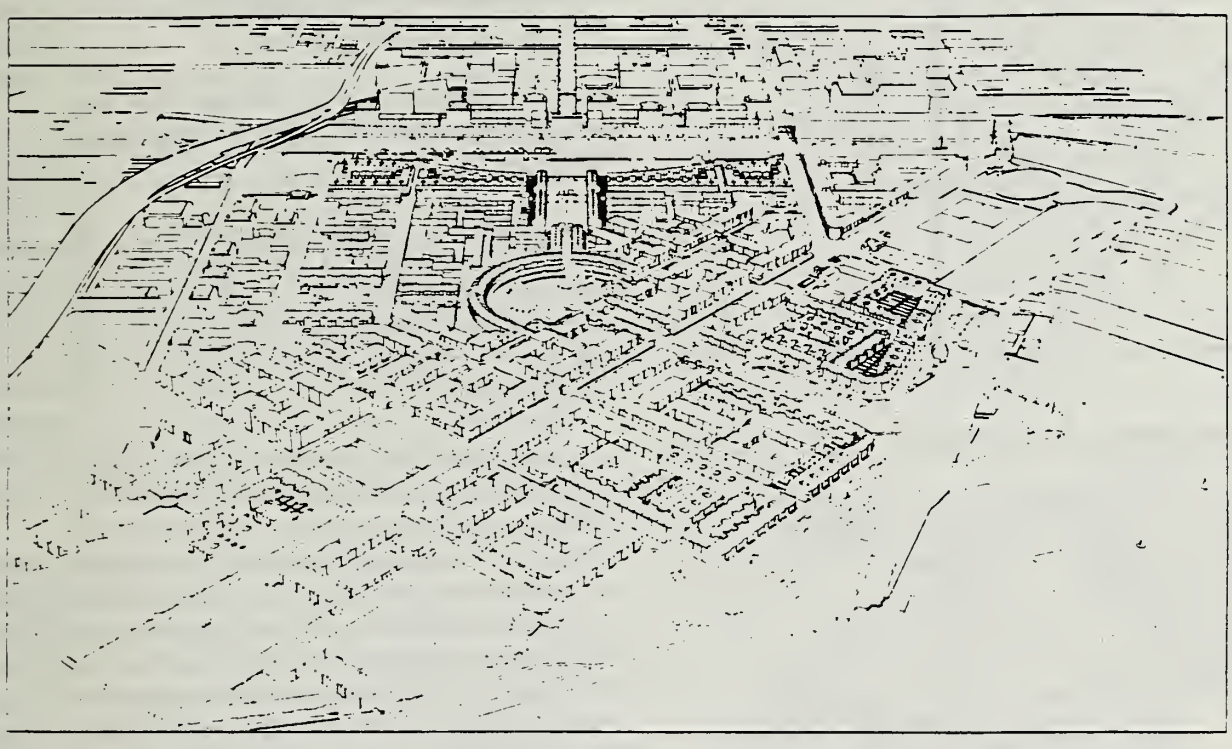

Delete Mission Point Park and Playfields, insert Mission Bay Wetlands Park configuration.
Revise shading of Block 50A to "Retail" and Residential

Illustrative

Figure 6

- Housing (Higher Density)
- Housing (Lower Density)
- Commercial-Light Industrial
- Retail
- Community Facilities
- Public Facilities Uses
- Open Space

URBAN DESIGN



Mission Bay is to be a new San Francisco neighborhood. This large new mixed use development should be integrated into the City's fabric in a manner respectful of San Francisco's existing urban pattern and beauty. How this is to be achieved through urban pattern, conservation and new development is the topic of this section.

The existing patterns of development elsewhere in San Francisco are composed of natural and built elements: water, hills, ridges, open spaces, landscaped areas, streets and structures. Mission Bay lacks hills and ridges; it also has had no organized street system, open space or landscaped areas, and no dominant building forms. Although it draws benefit from proximity to San Francisco Bay, China Basin Channel, surrounding hills, links to the area's street system and a few noteworthy built structures, Mission Bay is essentially flat and undistinguished.

Certain urban design objectives and policies set he overall design framework of the Mission Bay Plan. This section includes these general objectives and policies and a description of features of the Plan that will fulfill them.

Urban Pattern

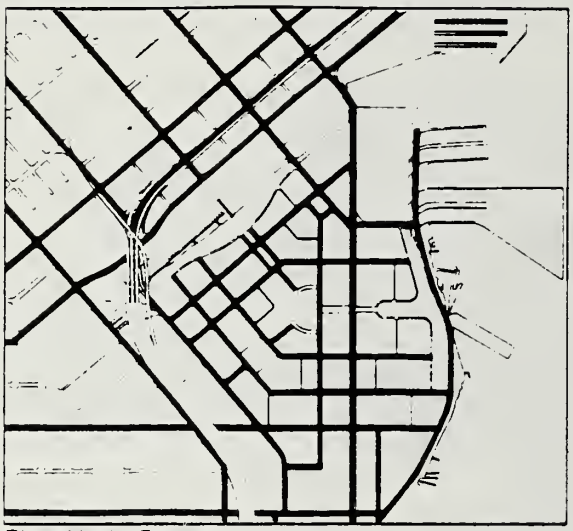
OBJECTIVE 2: EMPHASIZE IN MISSION BAY THE CHARACTERISTIC SAN FRANCISCO DEVELOPMENT PATTERNS WHICH GIVE ITS NEIGHBORHOODS IMAGE AND MEANS OF ORIENTATION.

Policy 1: Integrate Mission Bay with surrounding districts and the Bay.

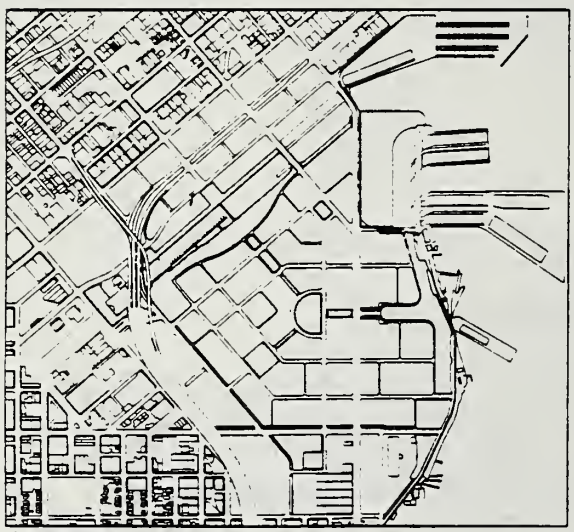
Policy 2: Protect major views to and from Mission Bay, using street view corridors, open space and tiered building massing.

Policy 3: Create visual and physical access to San Francisco Bay and the China Basin Channel.

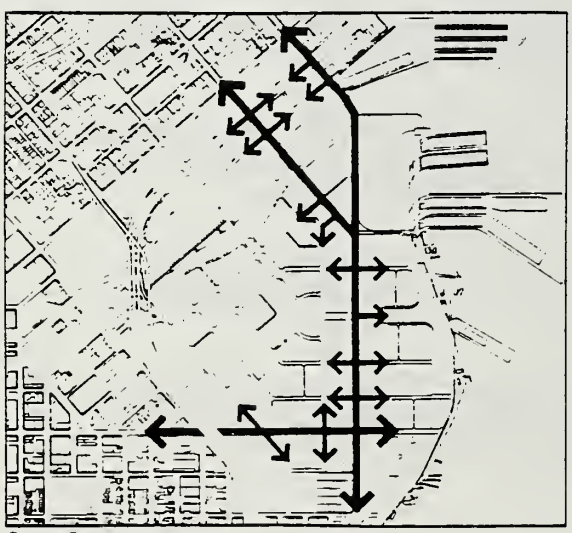
Policy 4: Connect Mission Bay Streets to the adjacent existing street patterns wherever feasible.



Fit within the Context



Open Space System



Street System

Policy 5: Recognize that variety and contrast in an urban setting adds complexity and excitement.

Policy 6: Recognize that buildings and open spaces seen together will create the character of Mission Bay.

Mission Bay as a new ~~56~~ 60-block development will have its own recognizable development pattern. Nonetheless, the intent also is to create a pattern of streets, parks and buildings that blends into its urban context. Mission Bay is planned to fit well within its context.

Planned land uses are intended to blend in with existing neighboring residential and workplace uses. Building design and massing as well as mixed-use activities will facilitate the transition from Mission Bay to each neighboring area. On Townsend Street in Mission Bay, the building types are to relate to those across the street and in the South of Market area. At Mariposa Street, the southern boundary of Mission Bay, the variety of residences and workplaces found farther south will be echoed. Large and small sites for housing or retail here will enhance the character of the Third Street Corridor. As Mission Bay buildout approaches, the edges of this planned area will blend into the city fabric.

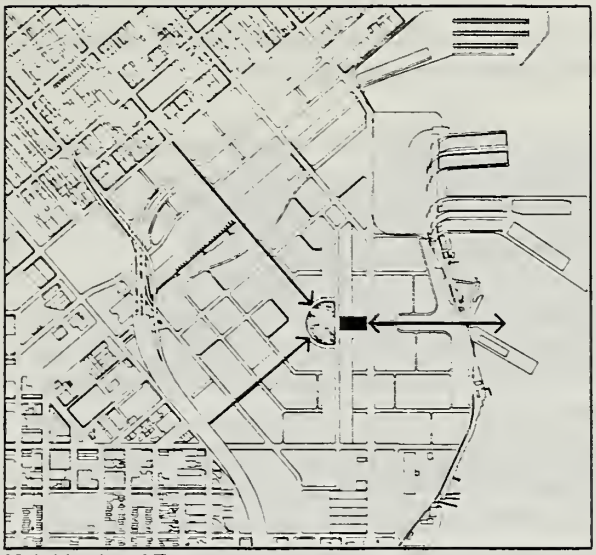
This is to be achieved, in part, with a complete system of open space and parks, threading through Mission Bay and oriented toward neighboring areas (see Figure 13). The improvements to the edges of China Basin Channel and the Fifth Street corridor should in the future be extended north into the South of Market Area. Similarly, landscape and pedestrian improvements along Sixteenth Street should in the future be extended into the Potrero community.

The street system is also intended to achieve integration through a hierarchy of streets tying Mission Bay to the north, south, east and west (see Figure 17). King Street, which becomes an extension of the Embarcadero Parkway, will tie Mission Bay to other waterfront areas to the north and Third Street improvements will enhance connections along this citywide arterial to neighborhoods to the south. Similarly, Mission Bay and Potrero

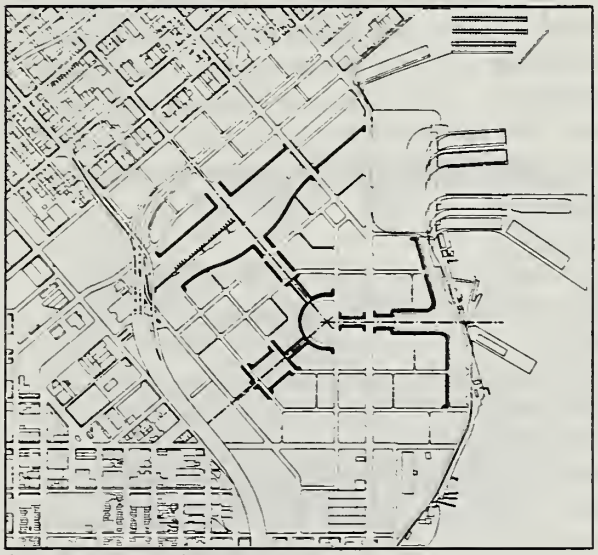
Hill are linked along Sixteenth and Mariposa Streets. North of China Basin Channel, the South of Market street grid pattern will continue to frame large blocks in the office and housing areas along Fourth, Fifth and Sixth Street. South of the Channel, the system of residential streets and smaller blocks found in nearby Potrero Hill will dominate.

The Mission Bay Plan provides physical and visual access to San Francisco Bay and China Basin Channel. Most Mission Bay streets are oriented to serve as view corridors. Major views to the Bay are improved by the arrangement of street view corridors and buildings. The Channel is a unique feature Mission Bay enjoys and a spectrum of activities are planned surrounding it. Views to planned open space are maximized by the design of buildings which are lower in height near all parks or step back in height from them.

Many older San Francisco neighborhood open spaces and streets are lined with rows of narrow, individually designed buildings. This pattern will be echoed in Mission Bay where 3-4 story housing is to be built in unit widths of 25 feet, with facades articulated by bay windows and front stair entries. This will create the fine-grained character in Mission Bay, comparable to other San Francisco neighborhoods.



Neighborhood Focus



Special Building Frontages

OBJECTIVE 3: CREATE DISTINCTIVE VISUAL CHARACTER FOR THE MISSION BAY AREA THAT IS COMPATIBLE WITH NEARBY AREAS AND AN ENHANCEMENT TO SAN FRANCISCO.

Policy 1: Create a hierarchy of large-scale to small-scale open spaces and landscaping that provides visual definition for Mission Bay.

Policy 2: Encourage development of Mission Bay in a manner which results in a new, attractive view element as seen from neighboring areas.

Policy 3: Achieve high quality design for buildings and landscaping.

Policy 4: Avoid extreme contrasts in color, shape and other characteristics which will

cause new buildings to stand out in excess of their public importance.

Policy 5: Promote the installation and maintenance of landscaping in public and private areas that is attractive from long distances and nearby.

Mission Bay's setting near the eastern shoreline of San Francisco offers dramatic views from the site and its flatness offers views of the site itself from surrounding hillsides and highrises. Street and open space plans and building heights are designed to maximize views from the neighborhood of the downtown skyline, western skyline, the Bay Bridge and the Bay. These views will be available from parks, streets, housing and workplaces. Conversely, Mission Bay parks, streets, housing and workplaces will be visible from nearby homes and workplaces. Views of new rooftops and open space will replace current views of trucks, rail yards and warehouses, without eliminating bay views.

To provide harmony while allowing for contrast, the design of all buildings in Mission Bay will be controlled in a manner that allows variety but ensures compatibility internal to Mission Bay and with its neighbors. The design character of new buildings will relate to that of existing buildings in terms of facade and roof treatment, materials and colors. Mission Bay buildings are to be of high quality design in keeping with standards citywide.

View to San Francisco Bay

Conservation

OBJECTIVE 4: TAKE ADVANTAGE OF THE UNIQUE FEATURES OF THE MISSION BAY SETTING.

Policy 1: Reinforce the bowl-like character of Mission Bay that is created by the surrounding natural hillsides and elevated structures.

Policy 2: Orient Mission Bay views and vistas to San Francisco Bay, China Basin Channel and to Downtown and Potrero Hill.

Policy 3: Increase the visibility of major destination areas and places by providing orientation through planned urban design of buildings and open space.

Policy 4: Emphasize the special nature of Mission Bay by orienting development and open space around waterways and water features and bringing open space into development areas to maximize enjoyment of the water.

Policy 5: Incorporate and augment appropriate elements reflective of the tidal ecology of Mission Bay.

Policy 6: Echo the original geography and history for the location and naming of new streets, parks and public buildings.

Various design features of the Mission Bay Plan reinforce the natural and historic origins of the area. Public access is to be provided along every waterfront edge within the plan area. China Basin Channel, the only remnant of the historic 260-acre bay, is to be the focus of major open space parks and outdoor activities as well as many housing units. A Mission ~~Point~~ Park is planned overlooking China Basin. Long Bridge Street is to be a pedestrian-oriented shopping street, evoking memories of the original Long Bridge and providing access, commerce and recreation near the Bay.

Many housing units are oriented toward the Channel and San Francisco Bay, as well as toward Crescent Park, the bay-shaped park in the heart of the new neighborhood. Other views and vistas from housing and workplaces extend north, west and

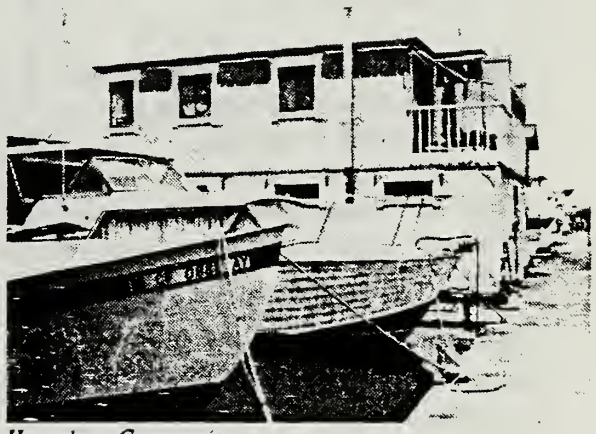
south to other San Francisco neighborhoods, along open space corridors or streets.

Design solutions for both edges of China Basin Channel hark back to earlier conditions. The northern edge is to be a perpendicular edge, perhaps framed by wooden supports, reminiscent of the Channel's edge as a wharf for hayscows or schooners. The southern edge is to be a gentle slope similar to the original bay and marsh edge prior to human intrusion. At the mouth of China Basin, a park will overlook the Bay.

Fire Station 30

Water features such as fountains are planned in key open space locations to remind passersby of the nearby aquatic environments. From these water feature sites, travellers can continue along open space corridors to the Channel or Bay.

The many activities occurring in the China Basin marine environment will be easily viewed from Mission Point Park. This vantage point, on the edge of China Basin, will give visitors an easily-reached destination for enjoying the tidal setting.



Houseboat Community

OBJECTIVE 5: PRESERVE CONTINUITY WITH MISSION BAY'S PAST AND PRESERVE NOTABLE LANDMARKS AND AREAS OF HISTORIC, ARCHITECTURAL OR AESTHETIC VALUE.

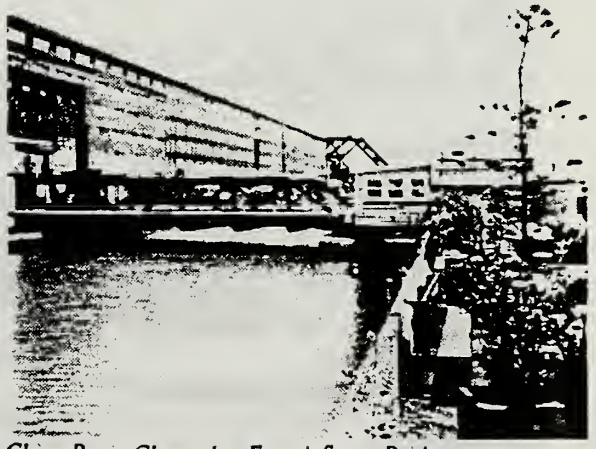
Policy 1: Respect the character of older development nearby in the design of new buildings.

Policy 2: Retain and feature the Third and Fourth Street drawbridges.

Policy 3: Preserve Fire Station 30.

Policy 4: Incorporate the existing houseboat community in the new development.

Over the past one hundred and fifty years, numerous short-lived structures have been built on the Mission Bay site in support of ship building and repair, shipping, rail and truck freight handling and recreation. A gashouse, numerous hotels, saloons, wharves, mills and factories have been captured in historic photographs (see **Vanished Waters**) but none remain standing. Long Bridge,



China Basin Channel at Fourth Street Bridge

which followed the Fourth and Third Street alignment across Bay waters, is no longer evident. Only the vacant Fire Station 30 stands, where Third and Fourth Street merge.

The Third and Fourth Street Bridges are notable Mission Bay landmarks. These extraordinary looking structures are bascule bridges that can be raised upon request to allow ships to sail up the navigable waterway. Both are a vivid part of Mission Bay's heritage. They now form interesting gateways between Mission Bay and the South of Market and should be retained.

New Development

OBJECTIVE 6: RELATE THE SCALE OF NEW DEVELOPMENT TO THE ADJACENT WATERFRONT AND TO EXISTING DEVELOPMENT.

Policy 1: Reduce building heights for new development within Mission Bay as development approaches the Bay.

Policy 2: Design and locate new development to preserve significant views from neighboring areas.

Policy 3: Promote harmony in the visual relationships and transitions between new and older buildings.

View from Potrero Hill

Policy 4: Provide a variety of building heights and avoid an overwhelming or dominating appearance in new construction.

Policy 5: Promote design and construction of building forms that will respect and improve the integrity of open spaces and other public areas.

Policy 6: Promote building forms that will enhance access to sunlight.

The Mission Bay development will reflect its context. The flat site is bordered on its west side by Potrero Hill and the elevated I-280 freeway, and edged by shoreline on its east side. Thus, the area's landform generally steps down from Potrero Hill to the water's edge. This transition from the higher elevations on Potrero Hill to the shoreline is reiterated in the pattern of rooftops in Mission Bay. The Plan calls for taller buildings near to and compatible with Potrero Hill, stepping down to lower buildings more compatible with the shoreline. This development pattern will reinforce the natural land form and will give the most housing units views eastward to the Bay. It also preserves the majority of the Potrero Hill views and maximizes bay views from housing and workplaces in Mission Bay.

Office and residential buildings north of the Channel may reach a maximum of 110 feet in height. However, height variations are required, precluding buildings from dominating adjacent South of Market streetscapes and existing buiidings. New commercial-light industrial buildings between I-280 and new housing on Owens Street are limited to a maximum of 85 feet in height with the majority of the building volume being 55 feet or lower. Across the street from these office and commercial-light industrial buildings, residential structures will respond to the height of neighboring buildings. Residential buildings next to open space or parks are to be lowrise to be compatible in scale to these public areas.

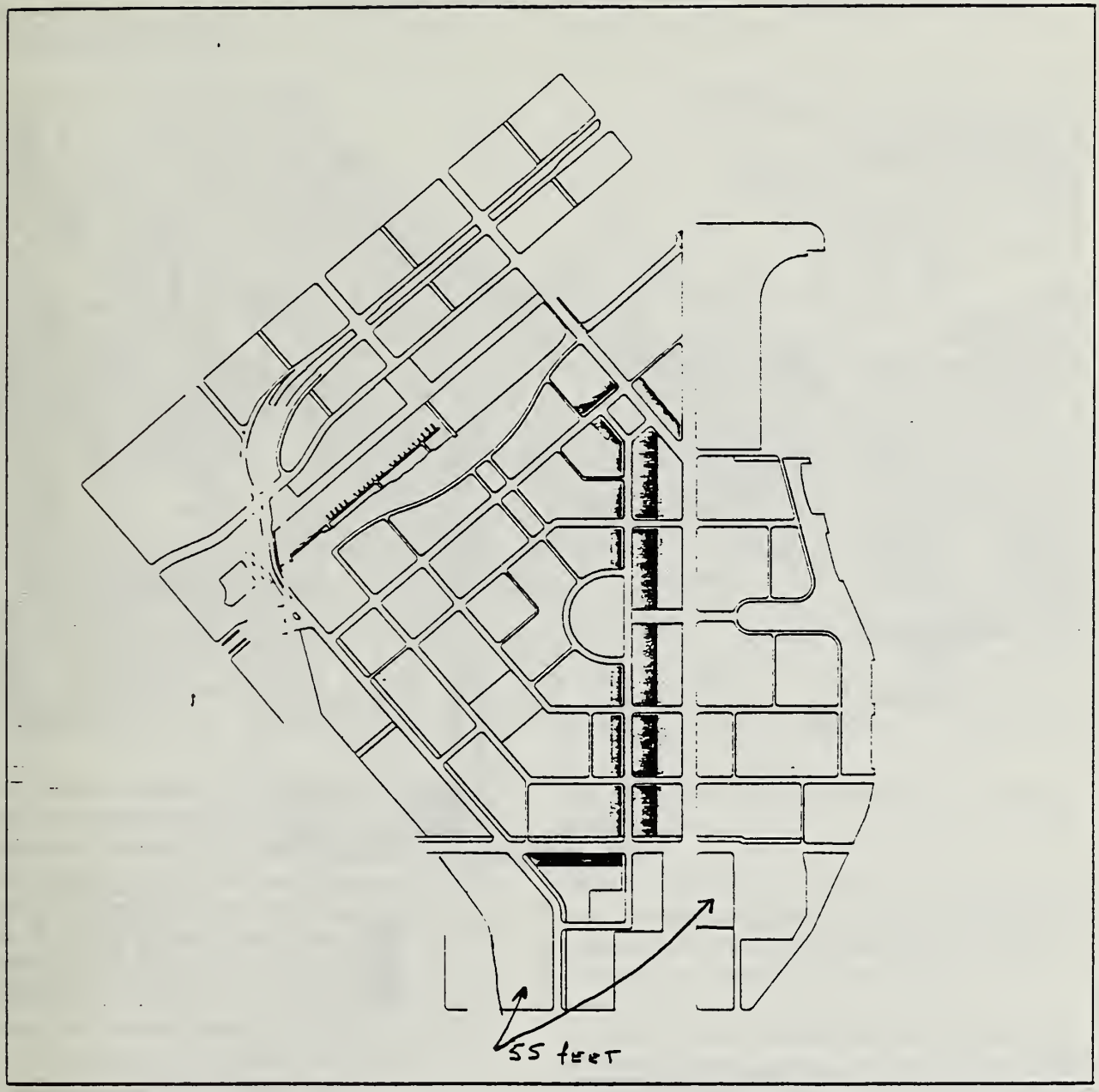


Figure 7: Height Plan

	45 feet		85 feet
	55 feet		95 feet
	70 feet		110 feet

Note: These heights are maximums subject to the exceptions in the Planning Code and to the design guidelines in this Plan, including in particular, Residence Guideline 2.2, Commerce and Industry Guideline 2.4 and Hotel Guideline 5.

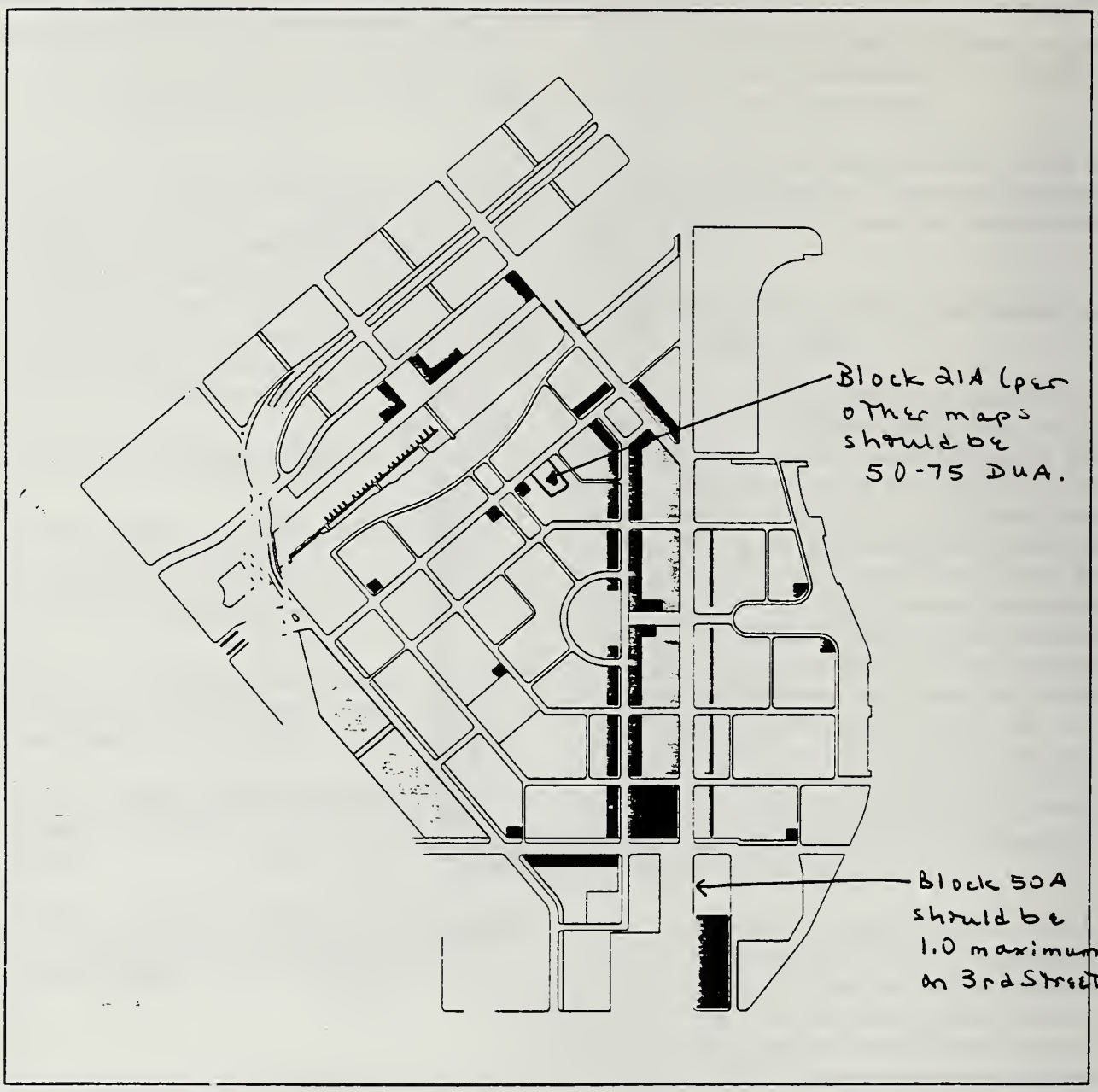


Figure 8: Building Density Plan

Residences
(Dwelling Units per Acre)

	Density	*Average*
	50-75	63
	75-100	78
	Over 100	139

Commerce and Industry
(Maximum Floor Area Ratio)

	1.0
	2.0
	~~3.5~~ 3.0
	4.5

Location of small scale community retail uses is illustrative only.

RESIDENCE

This section addresses housing, the predominant land use in Mission Bay. The neighborhood to be created by the development of ~~8,000~~ new housing 8,270 units is described, along with the characteristics of this new supply of housing, and details about the housing program and housing densities. The affordability requirements are discussed and the accessibility of housing for disabled persons and others with special needs is addressed. Residential design guidelines complete the section.

Neighborhood Environment

OBJECTIVE 7: DEVELOP NEW RESIDENTIAL NEIGHBORHOODS WITH THE CHARACTER AND QUALITY OF TRADITIONAL SAN FRANCISCO NEIGHBORHOODS.

Policy 1: Create a system of streets, lanes and blocks comparable to the size of traditional San Francisco streets, alleys and blocks.

Policy 2: Create a pattern of buildings built to the front property line so that streets and public places are generally defined by building facades.

Policy 3: Provide on-street parking in the manner typical throughout the City. Limit the amount of curb cut and garage door access to off-street parking in housing blocks.

Policy 4: Orient housing entries to the street and screen structured parking at-grade with perimeter housing units.

Policy 5: Provide higher-density, low-rise woodframe construction where possible and appropriate.

Policy 6: Locate commercial features with the potential to attract many visitors in areas that can accommodate and benefit from high activity levels.

Policy 7: Integrate commercial uses into the residential areas in mixed-use buildings on neighborhood commercial streets and permit artist live/work space when appropriate.

Policy 8: Use outdoor common areas, rather than internal corridors, for horizontal circulation in residential areas, when feasible.

Policy 9: Include adequate public improvements, services and amenities in all residential areas.

The patterns, scale and types of residential development that are characteristic of other successful San Francisco neighborhoods ensure the livability of those neighborhoods. These qualities are desired in the new Mission Bay neighborhood.

A key feature of the new neighborhood environment is the integration of a residential street system with a variety of land uses. A hierarchy of streets from vehicle-oriented to pedestrian-oriented will criss-cross the plan area. Minor arterials will intersect quiet lanes which in turn will be linked to the open space corridors.

The development pattern will be highly urban, allowing buildings to line the street and complex architectural facades to preside over the streetscape. Housing entries and windows are to face the street, creating a lively backdrop for passersby. Entrances to the necessary parking garages under housing will be minimum width. Blank parking garage walls at street level will be minimized to ensure that sidewalks are the domain of the pedestrian. The front steps, landscaping, entrances to and windows of homes will be the predominant visual elements on these residential streets. Buildings and common open space are to be oriented to the public, not toward internal corridors and private open space.

Convenient retail services will be part of the residential development. On Long Bridge Street, housing will be built over rows of small ground floor retail shops. Similarly, housing along Third Street will include ground floor larger retail outlets and second floor personal services and small offices such as for dentists or accountants. These will make the housing above more desirable by putting goods and services within easy reach of many residents. Many corners in the neighborhood may be occupied by small convenience stores within a short walk of most households.

OBJECTIVE 8: DEVELOP A PATTERN OF NEIGHBORHOOD-SCALED OPEN SPACES TO SERVE RESIDENTS.

Policy 1: Maintain a portion of each residential block or parcel for private open space, with contiguous mid-block open spaces as appropriate.

Policy 2: Locate family units in close proximity to public open space.

Policy 3: Incorporate frequent sunlit public squares and mini-parks in block patterns and allow for the potential for open space features within lanes.

Policy 4: Provide for small scale and intimate private and semi-private open spaces in residential areas.

Each residential block is to contain some form of open space for the use of that block's residents: private backyards, lanes with mini-parks at-grade or podium level landscaped terraces. Families with children and other active households will find open space nearby in neighborhood parks for passive or active recreation and pedestrian circulation.

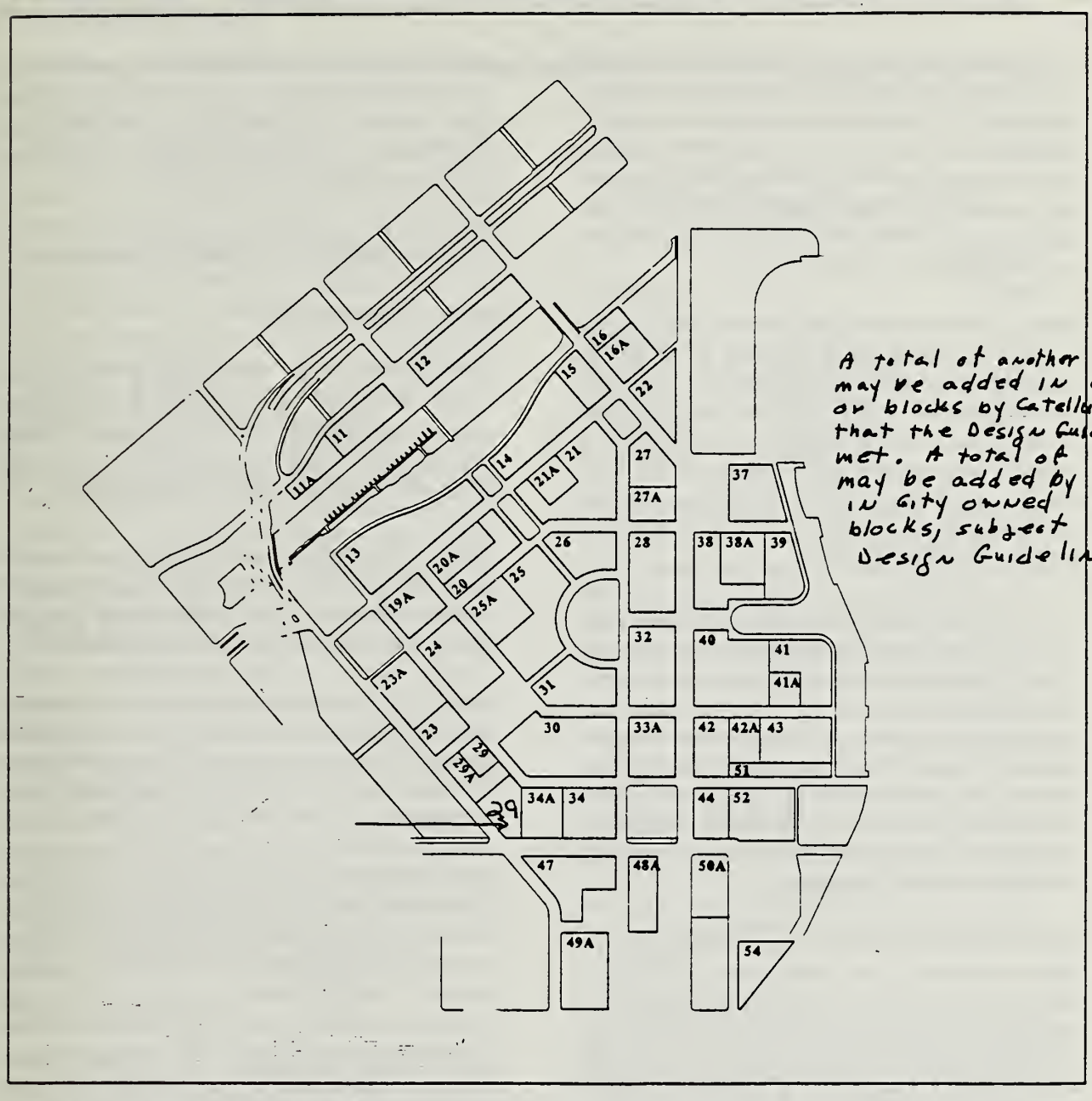
OBJECTIVE 9: DEVELOP HOUSING THAT ENHANCES THE HEALTH AND SAFETY OF RESIDENTS AND VISITORS.

Policy 1: Provide for building security through street orientation of housing, housing design and adequate street lighting.

Policy 2: Provide for pedestrian and open space security through visibility of public spaces and avoid obscured spaces with little sense of proprietorship.

Policy 3: Protect residential areas from the noise pollution and physical danger of excessive traffic.

Policy 4: Provide buffering for residential properties when heavy traffic cannot be avoided.



A total of another 70 units may be added in any block or blocks by Catellus, provided that the Design Guidelines are met. A total of 100 UNITS may be added by the City, in City owned affordable blocks, subject to the Design Guidelines.

Figure 9: Residential Density Plan

Block #	Acreage	DU	DUA	Pop
11	1.81 ~~1.80~~	281	~~155~~156	562
11A	1.03	200	194	400
12	3.26	419	128	838
13	4.58	239	52	478
14	3.10	165	53	330
15	1.09	58	53	116
16	.60	60	100	120
16A	1.55	120	77	240
19A	1.74	104	60	208
20	1.55	112	72	224
20A	1.44	102	71	204
21	4.05 ~~4.01~~	305	75 ~~76~~	610
21A	1.04	68	66	136
22	1.72	128	74	256
23	1.67	124	74	248
23A	1.61	210	130	420
24	2.58	195	75	390

Block #	Acreage	DU	DUA	Pop
25	4.54	252	56	504
25A	1.46	114	78	228
26	1.91 ~~1.93~~	125	65	250
27	1.27 ~~1.26~~	107	84 ~~85~~	214
27A	1.36	111	82	222
28	2.76 ~~2.77~~	209	76	418
29	1.76 ~~1.41~~	241	137 ~~171~~	482
29A	1.34	162	121	324
30	4.46 ~~4.45~~	334	75	668
31	2.42	153	63	306
32	2.76	211	76	422
33A	2.07	164	79	328
34	1.97	298	152	596
34A	1.60	210	131	420
37	2.15 ~~2.16~~	123	57	246
38	1.38 ~~1.35~~	134	97 ~~99~~	268
38A	1.68	106	63	212

Block #	Acreage	DU	DUA	Pop
39	1.68	101	60	202
40	4.02	343	85	686
41	2.13	162	76	324
41A	.93	65	70	130
42	1.61	128	79	256
42A	1.10	71	65	142
43	2.36	151	64	302
44	1.36	107	79	214
47	2.61 ~~2.57~~	190	73 ~~74~~	380
48A	1.64	114	70	228
49A	2.66	157	59	314
50A	1.52	122	80	244
51	1.10	63	57	126
52	2.58 ~~2.57~~	185	72	370
54	1.35 ~~1.45~~	97	72 ~~67~~	194

Notes: D = Dwelling; U = Units; A = Acre; DUA = Dwelling Units Per Acre. These block sizes may change when Tentative Maps are finalized. Population is based on an average of two persons per household. Actual population per block will vary according to unit size, household demographics, availability of subsidies, and ultimate density per block. "A" denotes specific sites for 2,200 affordable units. Another 800 affordable units will be located in other market-rate housing blocks.

The large number of new housing units to be built in Mission Bay calls for the design of a new neighborhood. This will be achieved within a system of neighborhood streets and blocks, with housing developed at a scale and intensity that is enjoyable and economical. Supporting retail services, parking, open space and public services will contribute to the Mission Bay way of life.

Many of the residential blocks in Mission Bay will employ perimeter block housing to define the edges of streets and public places; increase physical interaction at street level entries, stairs and windows; provide for neighborhood surveillance of public places and allow for maximum private open space internal to each block. Such street-oriented housing will give Mission Bay a distinctively urban, not suburban, flavor.

For both safety and neighborhood character, Mission Bay housing will be designed for outward not inward orientation. It will avoid the walled compound appearance at street level. Numerous front stoops, entries and bay windows will occur at the sidewalk's edge. Residents entering, exiting and pausing to talk at entries or to view the street from windows will create a stronger, more neighborly, social fabric. Less crime is committed on streets with ample watchful neighbors.

Mission Bay housing will occupy about 50 ~~37~~ blocks in a pattern of buildings and open space that is neighborhood-scaled. Many intricately designed housing blocks will contain open space for private use, whether at-grade or on a podium level. This will bring usable open space closer to many households.

Family units are to be located close to public open space. This will make it safer and easier for children walking to and gathering at local Mission Bay parks and will add peace-of-mind for parents concerned about their children's safety. Miniparks will be located in many blocks so that everyone can easily reach an attractive outdoor destination. All public open spaces will be accessible for seniors and disabled persons.

Safety and health will also be ensured by protecting homes from noise pollution and traffic hazards. Mission Bay housing is located away from King Street and I-280. Housing will be buffered from both noise and traffic hazards. The system of traffic signalization and pedestrian rights-of-way, including sidewalks, have been designed to further minimize risks.

Housing Characteristics

HOUSING DENSITY

OBJECTIVE 10: INCREASE SUBSTANTIALLY THE CITY'S SUPPLY OF HOUSING IN A MANNER COMPATIBLE WITH ADJACENT NEIGHBORHOODS AND OTHER USES WITHIN MISSION BAY.

Policy 1: Establish housing density parameters that take into account the size and diversity of the dwellings, and the space needed for open space, parking, light and air requirements.

Housing densities in Mission Bay will provide a large number of housing units in a diverse and pleasant living environment. Several parameters influenced the establishment of Mission Bay housing densities. In particular, the desire to add a substantial number of units to the City's housing stock created the need for higher densities. Soil conditions and seismic safety concerns will result in fairly high foundation costs necessitating higher density housing within the allowable building heights. Neighborhood livability and design criteria also affected the arrangement and volume of housing across the site. The housing densities by block are shown in Figure 9. These densities are comparable to other highly urban San Francisco neighborhoods close to downtown.

The densities of about 50 to 75 units per acre around Mission Bay open space and parks will achieve densities and livability standards comparable to those of North Beach. The higher densities of about 75 to over 100 units per acre (including one designated site for high density senior housing at ~~195~~ 194 units per acre) on the periphery of the housing area and adjacent to transit and employment centers will be similar to areas of Nob Hill.

A total of another 100 affordable units may be added in any block or blocks designated "A", and a total of another 70 market rate units may be added in any other block or blocks, provided that, in all cases, the Design Guidelines are met.

The densities shown on Figure 9 represent both a maximum and a minimum. However, it may not always be appropriate to build precisely the indicated number of units on a given lot. For example, the project may be an elderly project calling for a larger number of small units or it may be a family oriented project with fewer but larger units. To provide flexibility, densities on a specific site may be 10% greater than or 10% less than the number specified on Figure 9 provided that an increase (or decrease) in one parcel is compensated for by a decrease (or increase) in other parcels.

As blocks are subdivided into development parcels the densities for the block shown in Figure 9, plus or minus 10%, should be assigned to the parcel in direct proportion to the square footage of the development parcel. The same approach shall be used to assign densities to any parcel within any existing block. When more than one block is aggregated to form one development proposal, the density assigned to particular parcels and/or blocks may vary by more than ten percent (10%) from the density specified in Figure 9, so long as the total number of dwelling units provided within the proposal equals the total specified for all blocks within the proposal.

Automobile parking will include typical on-street spaces and structured parking under housing, with one off-street parking space per dwelling unit for residential units, excluding senior housing.

HOUSING TYPES

OBJECTIVE 11: PROVIDE A MIX OF HOUSING SIZES AND TYPES THAT WILL ASSIST IN MEETING THE CITY'S DIVERSE HOUSING NEEDS AND CONTRIBUTE TO THE DIVERSITY OF MISSION BAY.

Policy 1: Achieve the desired housing program with a variety of unit and building types.

Mission Bay should accommodate a broad mix of housing unit types by size, density, tenure and price. Housing sizes will range from studios to four bedroom units, on average being about 100 square feet larger than similar units built in the downtown area in the 1980's. A precise mix of housing unit sizes has not been specified. The mix will depend on a variety of factors. One likely mix is indicated below.

Potential Housing Mix by Unit Size

Unit Size		Proportion of Units
500 sq. ft.	Studio	19%
650 sq. ft.	Studio/1 Bedroom	21%
850 sq. ft.	1/2 Bedroom	26%
1,100 sq. ft.	2/3 Bedroom	20%
1,500 sq. ft.	3/4 Bedroom	14%

A variety of housing types will be built on the central ~~37~~ blocks of Mission Bay (see Figure 10). Townhouses and family oriented (three and four bedroom) units in three story buildings make up approximately 14 percent of the housing. Also, condominiums and apartments in two to four story structures over retail, services and/or parking are to be built. Approximately 35 percent of the housing units will be in mid-rise structures, including mixed market rate/subsidized and exclusively senior citizen housing. The remaining units are about equally divided between three story walk-up buildings and four to five story elevator buildings. A portion of the latter group will be in commercial-residential buildings where retail and offices on lower floors buffer housing units above from noisy streets.

High density housing is to be built on podium structures with some street level retail and parking on the first two levels. Mid-rise, five to eight story structures will allow many residents to live on or near the Channel and near the King Street transit corridor. A range of unit sizes, from studios (of about 500 square feet) to three-bedroom units (1,000-1,200 square feet per unit) will be possible here.

Additional fairly dense housing blocks are planned along Owens and Sixteenth Streets. Studios, one-two- and three-bedroom units can be provided here in mid-rise structures, with parking below and internal podium-level common open space. These podium structures along Owens Street will form a transition zone from workplaces on the perimeter of the site to the central residential neighborhood.

Mid-rise housing will offer generally smaller units, with the exception of some larger units that could be provided in buildings with panoramic views and other special amenities. Singles and couples will be the primary market segments occupying such housing. Unit sizes in mid-rise housing will include higher proportions of studio and one bedroom units, and tenure will be mixed. Mid-rise senior housing could provide higher densities within the height limit by using smaller units with less parking. Congregate or group housing facilities or life care housing with small units might fit within this prototype.

The remainder of the housing will be in the central blocks of the site in townhouses and three to four story residential buildings. Unit types will vary within each block. Studios and up to four-bedroom family units can be built here. Three story townhouses and apartments over parking will frame major open space areas.

The low-rise prototypes will provide a diversity of housing opportunities in wood frame construction, most likely built over concrete garages. Average unit size will be in the 800-900 square foot range.

Apartments above street level retail shops with parking garages below will be built along Long Bridge Street. Third Street housing built over a commercial base may tend to be smaller units. Singles, couples, and seniors may be the predominant residents. The Project Sponsor will allocate 50,000 square feet for up to 100 live-work units along the Third Street corridor. The housing mix in Mission Bay is expected to result in approximately two persons per household average. This is based on the mix of units by unit size and typical averages of persons per household for both market rate and the more affordable units.

Affordability of Housing

OBJECTIVE 12: PROVIDE HOUSING AFFORDABLE BY A WIDE RANGE OF INCOME GROUPS.

Policy 1: Use City financial powers and resources to reduce the cost and increase the supply of low- and moderate-cost housing.

Policy 2: Make maximum use of available Federal and State housing subsidy programs to provide affordable housing.

Policy 3: Use private efforts to provide affordable housing, including the provision of housing sites and infrastructure for public development of entry-level, middle income and senior housing.

Policy 4: Ensure long-term affordability of low- and moderate-income housing.

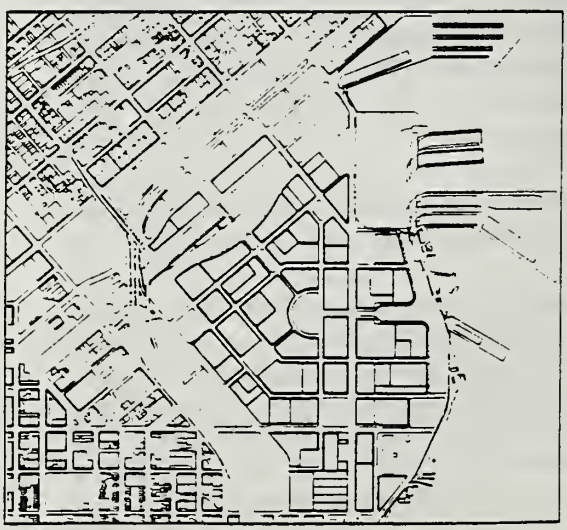
Policy 5: Integrate mixed-income units throughout Mission Bay housing developments.

Policy 6: Create opportunities for innovative housing types that minimize construction and infrastructure costs without sacrificing durability and quality of construction.

Of the 8,270 new units, 3,000 are to be affordable

~~About 37%, or 3,000, of the 8,000 new units are to be affordable~~. On Project Sponsor property conveyed to the City (about ~~25~~ 26 acres), the City will be responsible for constructing ~~2,200 units~~ 2,300 units (100 of which will be subsidized by the Project Sponsor); while the Project Sponsor will develop ~~800~~ 700 affordable units to be built as part of other market-rate residential blocks. The affordable housing sites for the ~~2,200~~ 2,300 units are shown below. About half of the City's Mission Bay affordable housing units are planned as three- and four-bedroom units.

Additional subsidy needed to bring the units within the affordability range will be provided.



Affordable Housing Diagram

Included in the 8,270 units are up to 100 live-work units to be located in 50,000 square feet along the Third Street corridor.

Some of the City's units will be offered for households earning ~~about~~ 75% of the HUD-established Bay Area median income; some at 100% of median income and some at 120% of median income.

The Plan provides for economic integration by mixing affordable and market rate units in most blocks. Affordable and market rate housing will share the same amenities such as shops, streetscapes and parks. The exterior design quality and character of affordable units should be comparable to that of the market rate housing.

Accessibility of Housing

OBJECTIVE 13: PROVIDE A WIDE RANGE OF HOUSING CHOICES.

Policy 1: Provide accessible and adaptable housing for the physically disabled and the elderly.

Policy 2: Provide a range of rental housing and opportunities for home ownership.

Policy 3: Provide housing suitable for families with children.

Policy 4: Provide housing suitable for persons with varied lifestyles.

Policy 5: Provide housing opportunities for groups with special needs.

Policy 6: Promote housing types that can be adapted in the future to serve evolving needs of the population.

Policy 7: Maintain the existing houseboat community within Mission Bay.

Many of the units built in Mission Bay will be accessible or adaptable for disabled households. Accessible units will present no physical barriers to handicapped persons. They will be designed as part of larger housing developments. Adaptable housing will be built so that minor non-structural adjustments can be made if the demand for these units increases. Individual developers in Mission Bay will be encouraged to incorporate design features that help achieve this objective.

Some of the residential buildings will be accessible and some will contain adaptable units for persons with mobility disabilities in accordance with applicable standards and regulations of federal, state and local law. Required adaptable units will include accessible environmental controls, reinforcements in bathroom walls for grab bars near fixtures, and accessible routes through the unit with special design features in kitchens and bathrooms to accommodate wheelchair use. In addition, public areas and paths of travel to primary entrances of buildings containing adaptable units will be designed for accessibility by handicapped persons.

Mission Bay ownership and rental units will combine to create an adequate supply of economic opportunities to match varying household incomes. Current San Francisco housing stock is about 65% rental, but much of the housing recently constructed has been for purchase.

Housing for families is an important part of the Mission Bay housing program. About one third of the units, either three- or four- bedrooms, will accommodate families with children. Most will be near parks; some will be near the school site. Townhouses and larger walk-up units will be developed in blocks containing other types of housing as well so that lifestyle differences can be accommodated within one neighborhood.

The existing houseboat community, the only enclave of this unique housing type in San Francisco, will remain in China Basin Channel. Live/work units may be developed in the neighborhood commercial and commercial-light industrial areas.

Residential Design Guidelines

1. GENERAL INTENT

1.1 Design Variety and Special Identity

The intent of the design guidelines is to reconcile the reality of large housing developments with the desire for fine-grained variety and the kind of special identity of older San Francisco neighborhoods which were created by development on a small scale.

Given the pattern of land ownership in Mission Bay and the economies of scale, it is likely that in many cases large increments of housing will be designed and developed as single projects. Many large housing projects on raw land are designed as controlled environments, turned inward and buffered from their surroundings. Such independent and isolated complexes are exactly contrary to the objectives of creating the street oriented, cohesive, urban neighborhood in Mission Bay.

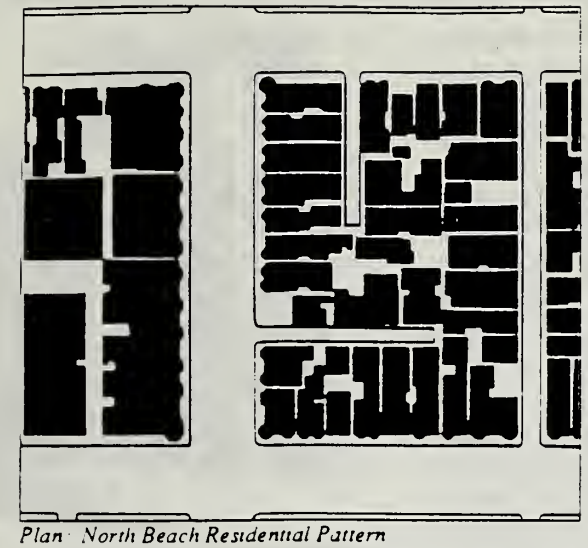
These design guidelines call for housing oriented to and with frequent entries from the street. The guidelines recognize the need to provide security, both actual and perceived, but identify solutions other than enclosed compounds to create a safe urban neighborhood.

Large housing developments also tend to be of uniform, repetitive design within themselves and dissimilar in design, often dramatically so, to neighboring developments. This design pattern does not create the fine-grained variety and special identity of older San Francisco neighborhoods which resulted from the incremental development of individual buildings on narrow lots which were designed by a variety of different designers drawing on a common architectural vocabulary. These design guidelines are intended to create in large parcel developments a comparable fine-grained variety and special identity through the use of a number of design techniques.

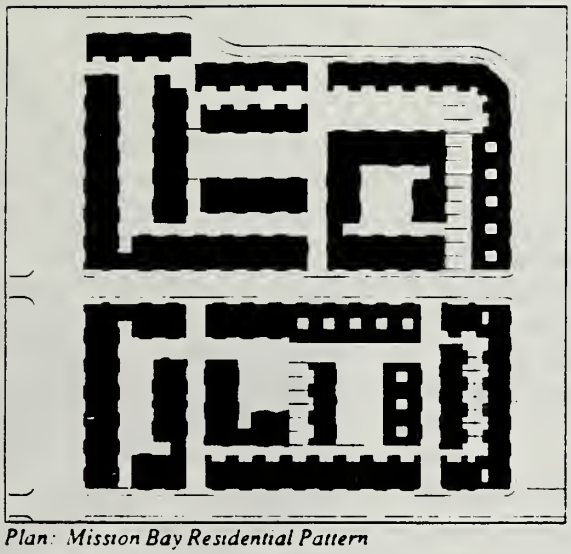
San Francisco Residential Fabric

San Francisco Residential Fabric

San Francisco Residential Fabric



Plan: North Beach Residential Pattern



Plan: Mission Bay Residential Pattern

Low-Rise Residential

1.2 Low-Rise Residential Buildings

One of the principal land use elements of Mission Bay is an extensive low-rise residential neighborhood, the design of which is based on traditional San Francisco neighborhoods. The plan incorporates two block patterns derived from San Francisco precedents. First is the pattern of small-scale, mid-block streets or lanes such as those in North Beach, South of Market and elsewhere in the City. Second are the blocks typical of many San Francisco neighborhoods which have small-scale row houses at mid-block and larger apartment buildings at the corners. The design guidelines are adapted from these existing development patterns, but acknowledge the special conditions of Mission Bay.

The design guidelines for the low-rise buildings are intended to ensure that small-scale buildings will be oriented toward an armature of public space, which consists of streets, mid-block lanes, and parks. The housing should shape the edges of the public space and populate it with life. As a general rule, building orientations are to be parallel to the street configuration.

Blocks of townhouses and three and four story flats and apartments are a basic element of the Mission Bay residential fabric and are most typical of traditional San Francisco neighborhoods. The character of these older neighborhoods was established by the subdivisions of land into 25 foot wide lots, corresponding to the width of a typical house or apartment and the individualized design of buildings at that scale. The guidelines for building articulation, entrance frequency, building bases, bay windows, curb cuts and mid-block lanes are intended to adapt these historic San Francisco housing patterns to contemporary needs for security, automobile use and development of multiple units and to the reality that the housing will not be built a single 25 foot wide lot at a time. The guidelines contain special provisions to ensure the 25 foot increment of building articulation and design variation along the street, with frequent entrances. Garage doors will be minimized to maximize on-street parking, provide greater building structural strength and allow for a more pedestrian-oriented building facade.

Also typical of traditional San Francisco neighborhoods is the four story building served by elevators from central lobbies accessible from entry stairs from the street or at grade. These larger buildings generally occur at corners where there is greater access of light and air to the units. For example, the Marina district has 25 foot wide row houses at the mid-blocks and larger and wider buildings with the proportions and organization of an indoor Palazzo marking the corner.

These larger buildings are permitted in most areas in Mission Bay as part of a mix of three and four story buildings on a block. Four story buildings may either follow the rowhouse model of facade modulations at 25 feet intervals with frequent principal entrances or the model of the wider (no greater than 100 feet) apartment building with a central lobby. If the latter, their location on corners is encouraged.

25-Foot Module

1.3 Mid-Rise Residential Buildings

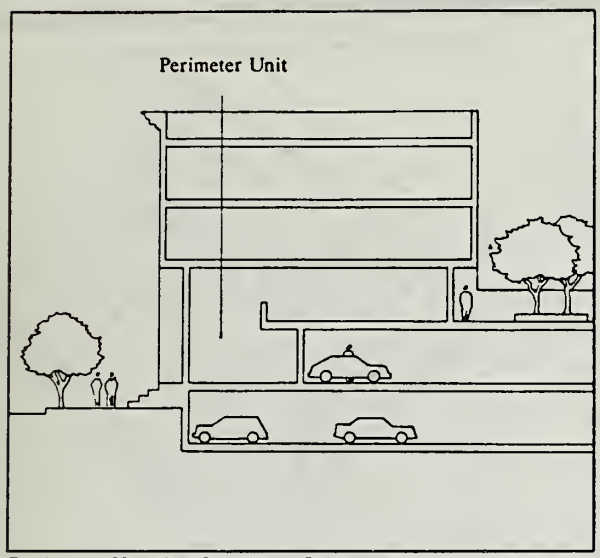
Mid-rise buildings are programmed for south of Berry Street, Owens Street and for both sides of Third Street. The height and width of these buildings and the possibility that a number of them may be built as part of a single development create the potential that a tall, long and monotonous wall may be created along these streets.

The problem is one of visual appearance. Many of the streets on the southern lower slopes of Nob Hill and in the North of Market are lined with tall apartment buildings with little or no separation between them, yet they provide an attractive streetscape. This is because they are separate buildings, generally no wider than 75 feet, designed by different architects. Each building displays a distinctive but compatible architecture.

Ideally buildings in the mid-rise residential districts of Mission Bay should be individually designed buildings no greater than 100 feet wide. Failing that, it is intended that the facades of these structures be broken down by strong vertical dimensions into increments of 100 feet or less which are sufficiently varied in design and architectural treatment that the streetface reads as a collection of smaller buildings.

Traditional Mid-Rise Residential

Contemporary Mid-Rise Residential



Perimeter Housing Screening Parking

1.4 Parking

The overall density of housing and the parking needs it will generate, coupled with the difficulty of providing parking completely below grade because of the high water table, will result in parking being the predominant use of the ground floor of most buildings in Mission Bay. This use, if allowed to extend to the street facade, will result in a dead pedestrian environment. The guidelines are particularly intended to prevent this from occurring by providing that wherever possible parking be screened by active uses, such as housing, retail uses and stairways. The single aspect residential unit is a unique Mission Bay housing type to be used to screen structured parking.

2. GENERAL GUIDELINES

2.1 Housing Densities and Unit Sizes

The desired densities for each block are shown on Figure 10. Traditionally densities are stated as maximums. However since Mission Bay is intended to provide a major housing resource for the City, these densities are also intended to be minimums.

The indicated densities are the average for the block and need not be maintained so long as the densities are maintained in the manner described on page 3-14.

In addition, overall unit size averages are to be maintained as follows:

Unit Type	Average Unit Size
Affordable units	910 square feet
Market rate units	850 square feet

The unit size averages apply to the entire Mission Bay project and need not be met in each housing project or on each block so long as, as Mission Bay builds out, the unit size average is maintained. Within the overall acreage for housing, individual unit sizes may vary from studios to four-plus-bedroom units.

Buildings fronting on public parks should be designed to reduce the amount of shadow cast on the parks without materially interfering with the use, height, density and intensity of development permitted on the site.

2.2 Residential Height and Bulk

The maximum number of floors of above grade housing are shown on Figure 10. Maximum allowable building heights in feet are shown on Figure 7. The guidelines allow a variety of housing types within these heights.

Low-Rise Buildings

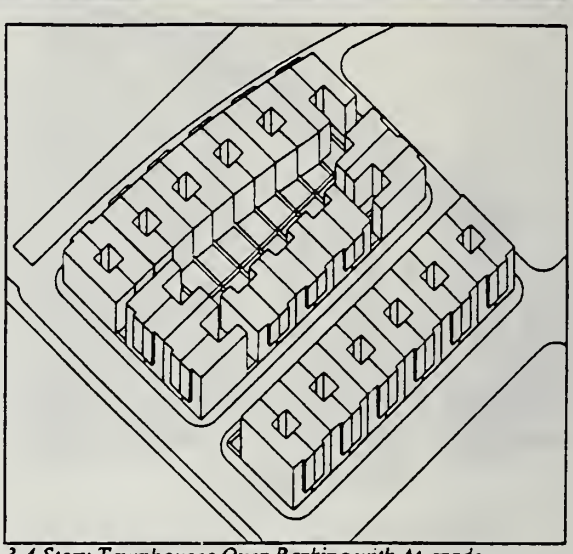
A substantial portion of the residential and neighborhood commercial area will be a mix of three and four story townhouses and apartments. (The number of stories excludes parking that is depressed at least half a level below grade but otherwise includes it.) Three story housing over parking is particularly encouraged along South China Basin Channel and Mission Bay Green to frame these major formal waterfront edges. It is also encouraged along mid-block lanes and around mini-parks.

In low rise buildings, loft housing units are allowed above the last full floor. These units will be treated as part of the roof and not counted as a floor. These units are to have a smaller floor area (no more than one half the square footage of the last full floor) and are to be expressed within a sloping roofline architecture as a series of dormers.

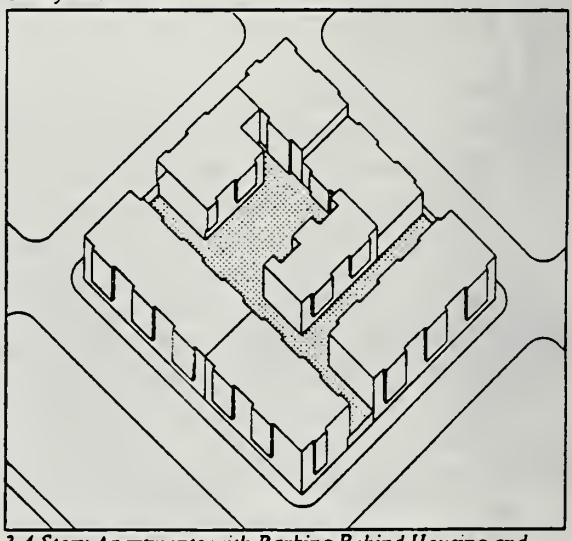
Overall, no more than approximately 50% of the residential floor area in the three and four story height districts should be in four story buildings. Within each three and four story block, generally within each large development parcel within a block, and along each street face of a block, there should be a mix of three and four story heights, except around park and waterfront edges where a uniform height is desired. Four story buildings are preferred on corners where three and four story buildings are mixed.

In order to achieve the desired densities in the residential area south of Sixteenth Street all or most residential buildings in that area may need to be four story.

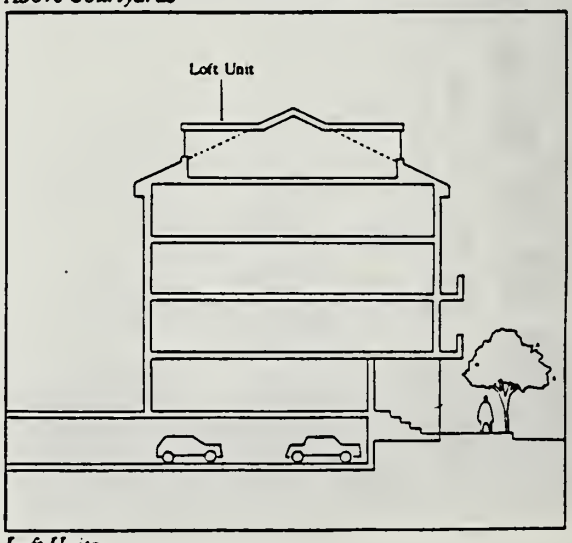
Four and five story buildings (three or four stories of housing over one story of retail with parking behind the retail) are located in the Neighborhood



3-4 Story Townhouses Over Parking with At-grade Backyards



3-4 Story Apartments with Parking Behind Housing and Above Courtyards



Loft Units

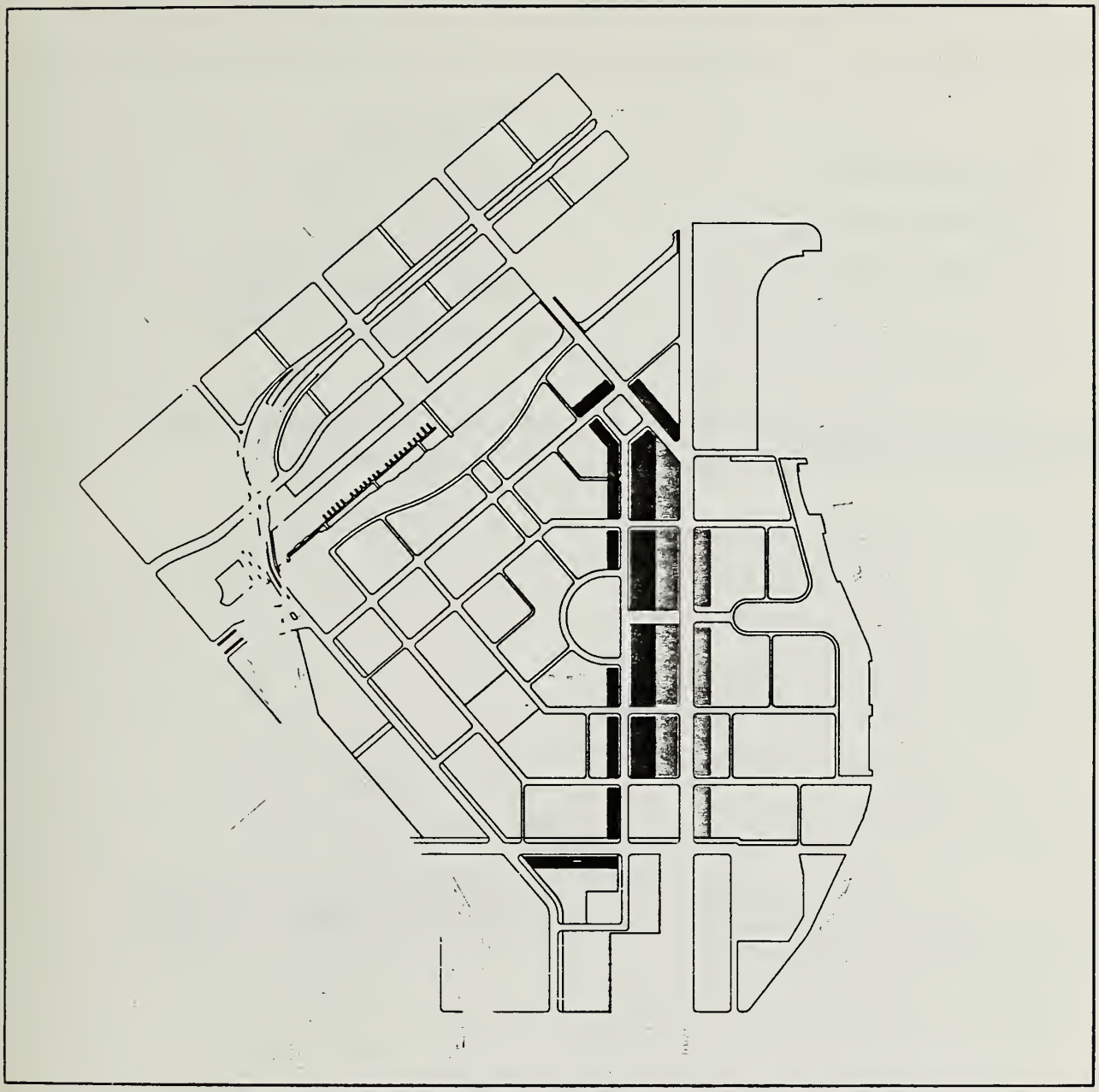


Figure 10: Residential Building Types

3-4 Story Townhouses and Apartments over Parking

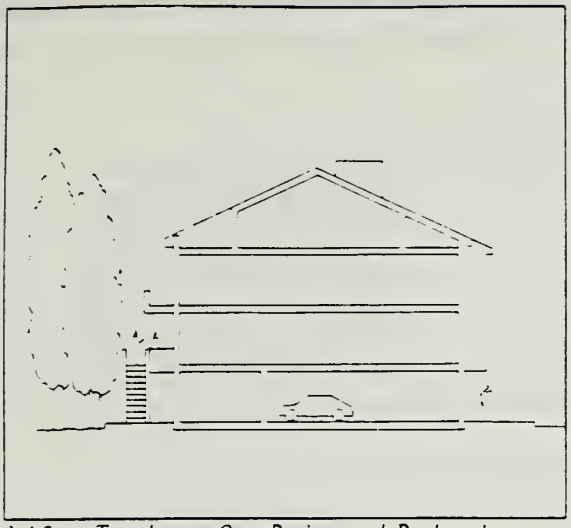
3-4 Story Apartments over 1 Story Retail with Parking

3-4 Story Apartments over 2 Story Retail with Parking

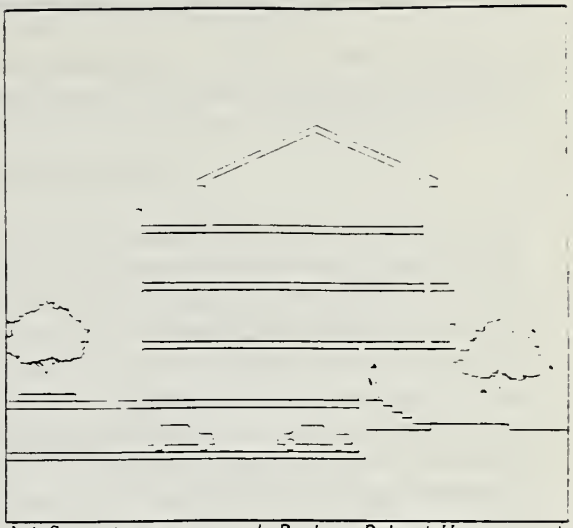
4-8 Story Apartments Plus 1 or 2 Levels of Parking Screened by Housing, with Courtyards Above Parking

5-10 Story Apartments Plus 1 or 2 Levels of Parking Screened by Housing, with Courtyards Above Parking

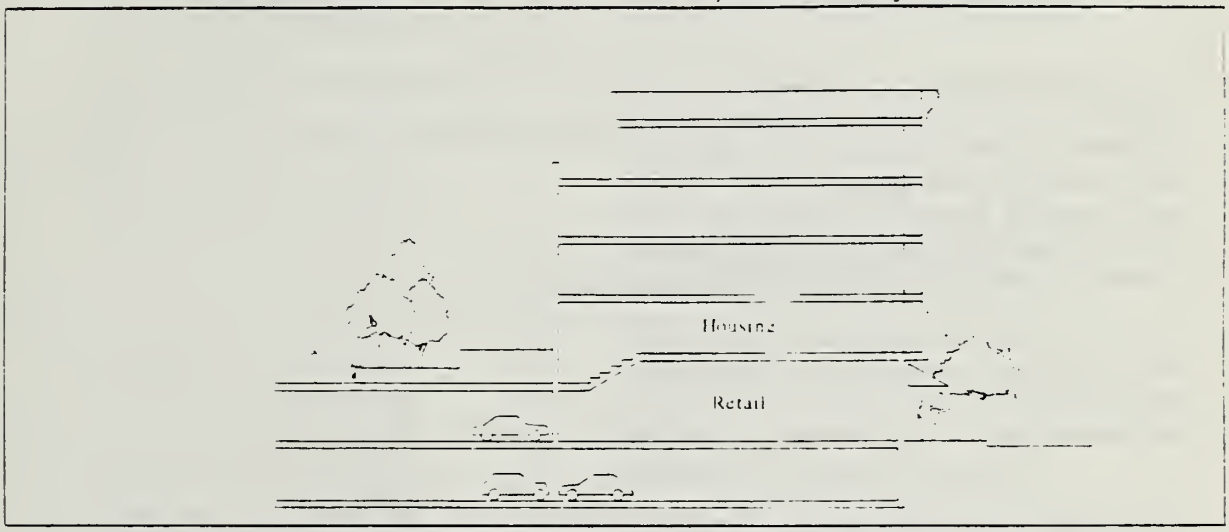
Note: The number of stories excludes parking that is depressed at least one half level below grade or lower.



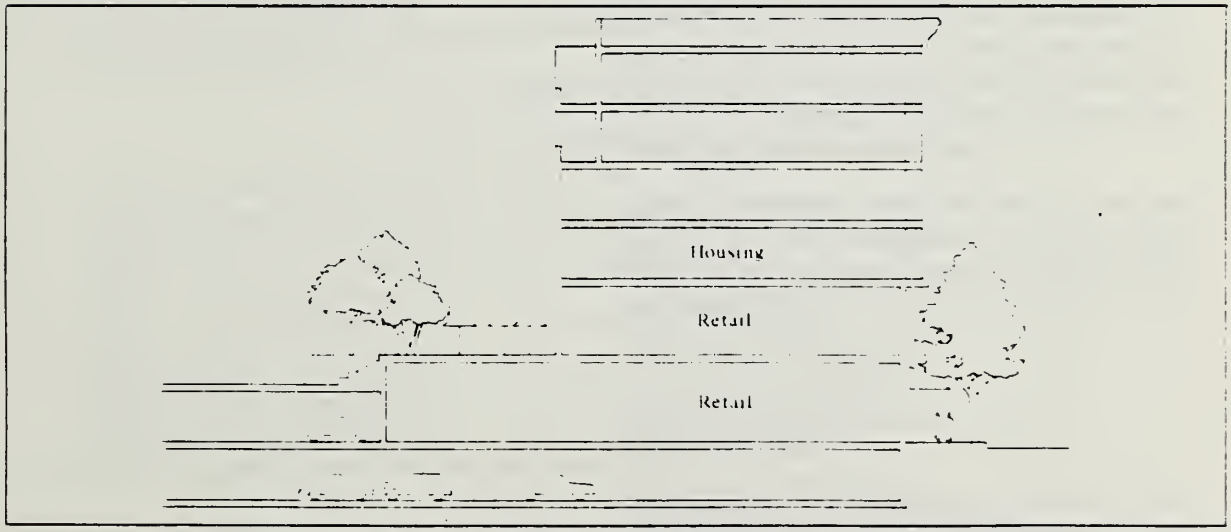
3-4 Story Townhouses Over Parking with Backyard



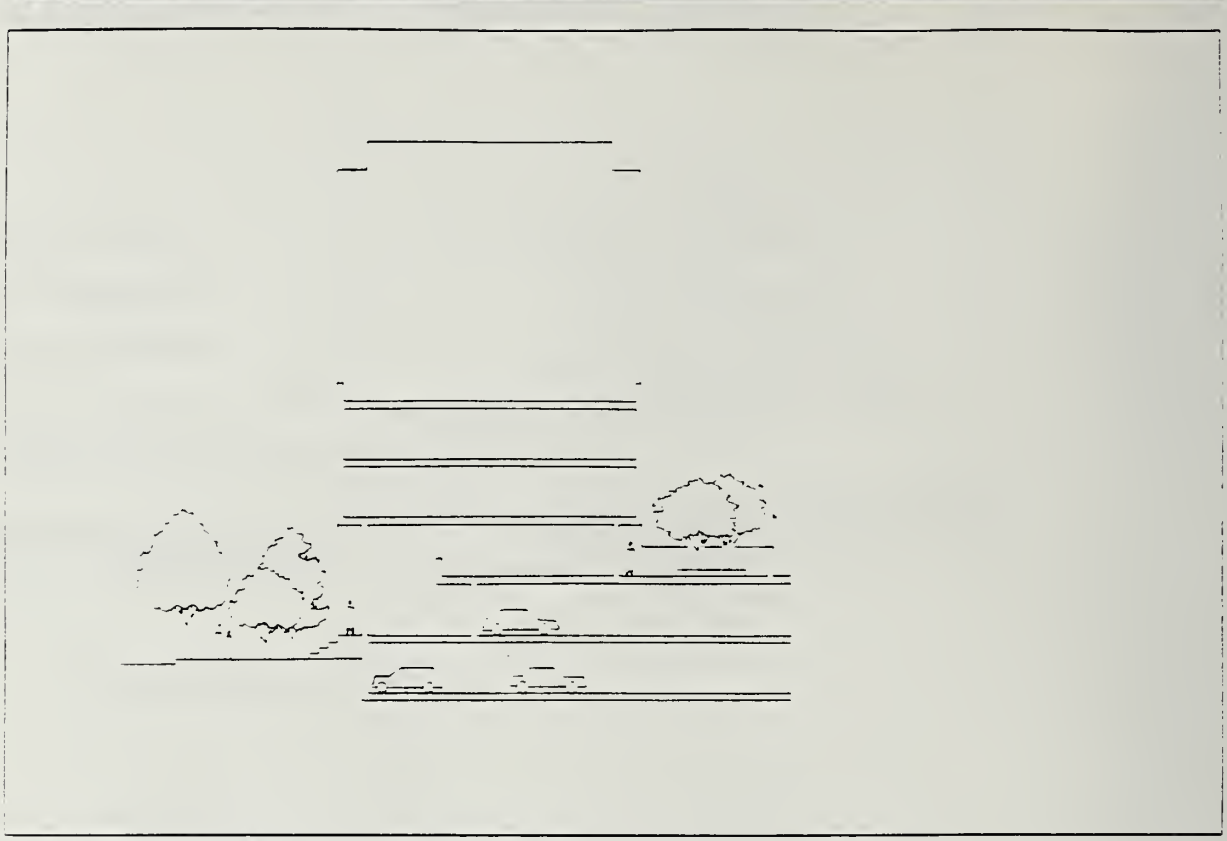
3-4 Story Apartments with Parking Behind Housing with Courtyards Over Parking



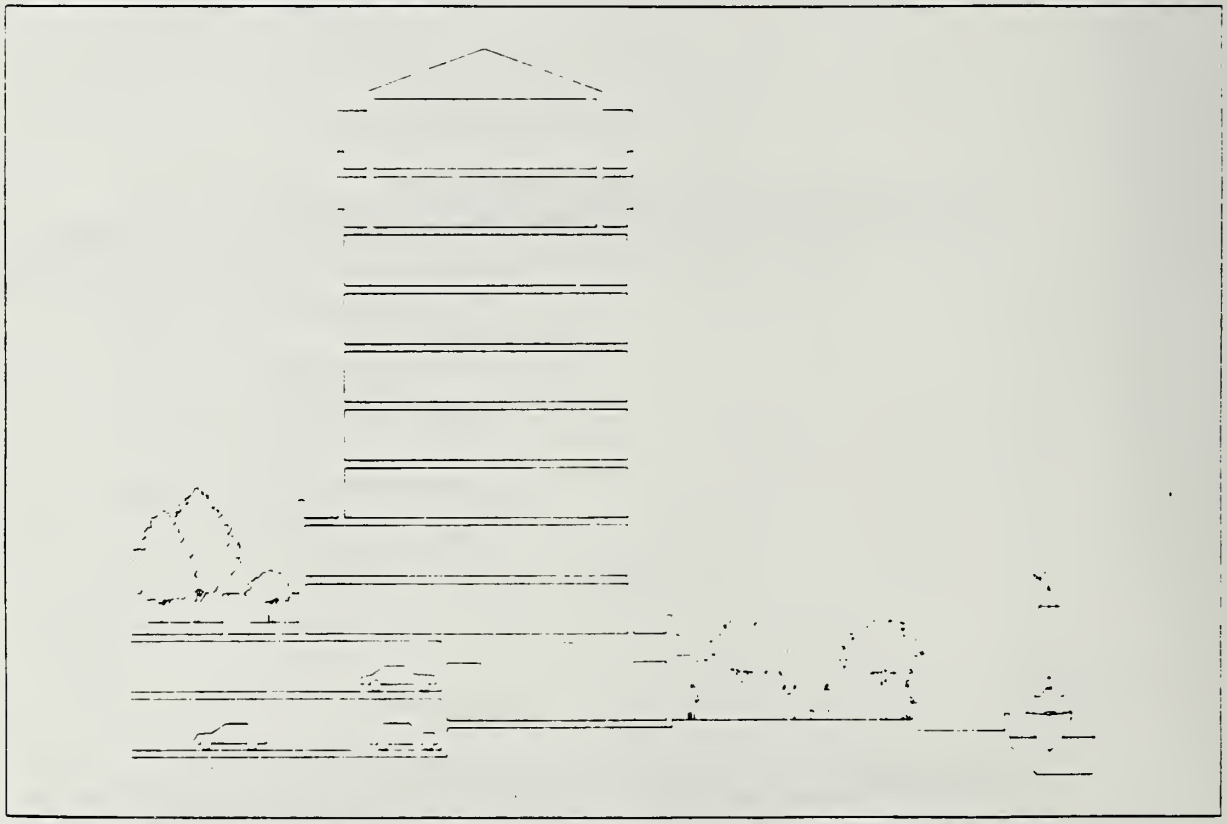
3-4 Story Apartments Above 1 Level Retail, with Parking Below or At Rear, with Courtyards Over Parking



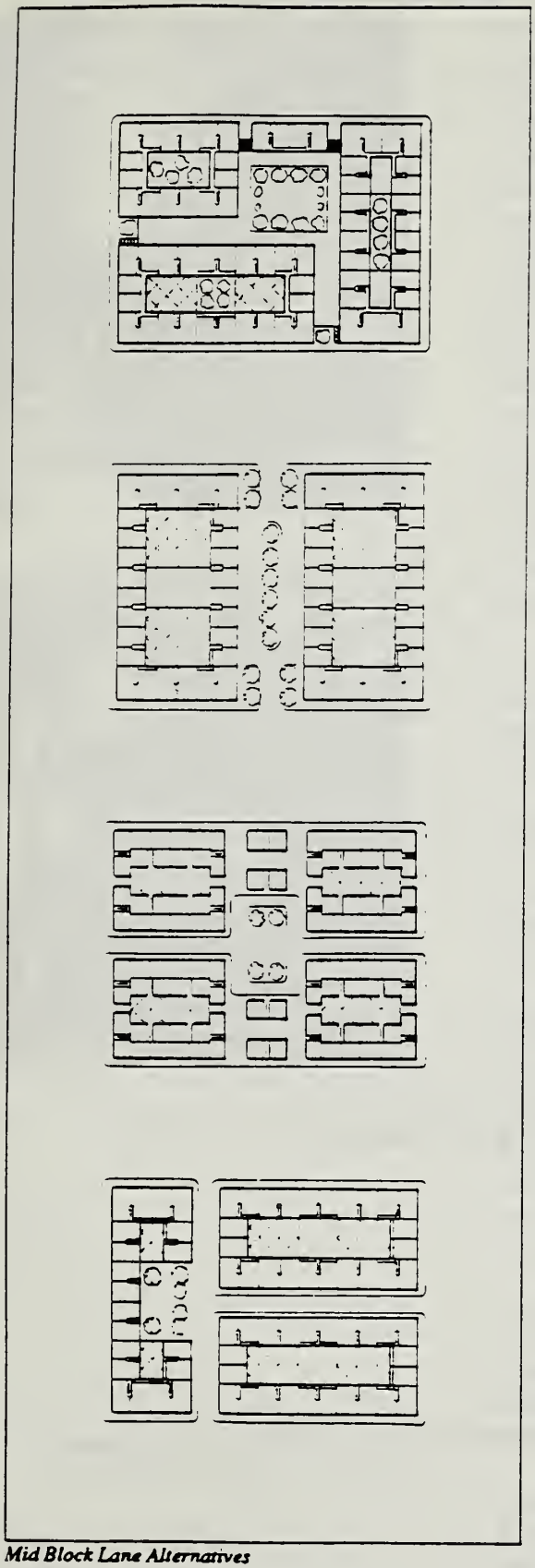
3-4 Story Apartments Above 2 Levels Retail, with Parking Below or At Rear, with Courtyards Over Parking



Apartments with Parking Behind Housing, with Courtyards Over Parking



Apartments with Parking Behind Retail or Housing, with Courtyards Over Parking (Ground floor retail use shown)



Mid Block Lane Alternatives

Commercial Districts along Long Bridge and Sixteenth Streets. Five story buildings are permitted along Long Bridge Street at corners only.

Mid-Rise Buildings

Mid-rise residential buildings are located at the edge of the residential area adjacent to the commercial-light industrial development on the northwest side of Berry Street and the east side of Owens Street. East of Owens Street, the mid-rise residential buildings will vary from four to eight full residential floors plus one or two floors of parking faced with perimeter housing. The mid-rise residential buildings south of Berry Street will vary from five to ten full residential floors plus one to two floors of parking faced with perimeter housing.

The eight and ten story buildings should be fairly evenly distributed throughout their districts. Preferably, taller buildings should be located on corners. No precise bulk limits for the eight and ten story elements have been set. However, wide, view-blocking slabs should be avoided. Preferably, taller buildings should be located on corners.

The frontage between the eight and ten story elements should be developed at four or five stories to provide a continuous street wall broken only by mid-block passageways or stairways to elevated interior courtyards above parking.

Buildings forming the edge on the north side of China Basin Channel are to be predominantly five stories with an occasional ten story element as an urban design accent and to achieve desired densities. The taller elements should be organized as relatively slender and widely separated tower elements piercing a five story base.

Mid-rise buildings with four floors of housing above two floors of commercial uses are to be located along Third Street, the major (100 foot wide) north-south traffic artery in the southeast quadrangle of the City.

2.3 Division of Blocks

Mid-Block Lanes

The primary street grid of the plan area creates block frontages south of the Channel which range from 250 to 850 feet. Many of these blocks ex-

Figure 11: Required Mid-Block Lanes and Mid-Block Parks

Mid-Block Lane

Mid-Block Park

Note: Locations are approximate. Exact locations are governed by the design guidelines.

Mid-Block Lane

Mid-Block Park

ceed dimensions typical of the San Francisco street pattern and are too wide to provide adequate circulation. The subdivision of these blocks by required mid-block lanes would provide additional street frontage for housing and opportunities for mini-parks, create a more intimate and characteristically San Francisco pedestrian scale, and facilitate circulation. The lanes can also provide substantial on-street parking for visitors and residents. Additionally, appropriately located lanes may provide views to water, open space and landmarks as well as providing more direct access to major neighborhood destinations.

Specific mid-block lanes are required on the blocks shown on Figure 11 approximately in the location indicated. Additionally, because of the many advantages they provide, they are encouraged on other residential blocks.

The block layouts shown on page 3-24 illustrate some of the variety of block configuration and housing layouts that can be achieved in a 385 foot by 285 foot block subdivided by mid-block lanes.

Mid-Block Parks

It would be desirable to punctuate large blocks with public, at-grade mid-block or mini-parks located along and served by a mid-block lane.

These parks provide green space and can support a variety of uses including fenced play areas or quiet garden areas with seating. They also create a very pleasant residential street environment. Preferably, the surrounding housing would be townhouses above their own parking but walk-ups over aggregated parking would also be appropriate.

The size of the parks should be approximately one tenth of an acre or more. ~~A~~ mid-block park qualifies as common open space and thus would assist in satisfying the open space requirements of the adjacent housing.

Figure 11 indicates the blocks requiring mid-block parks. The locations shown are approximate. Mid-block parks are also encouraged in other locations. The block layouts shown on page 3-24 indicate some of the many possibilities.

Lot Coverage

Lot coverage above the parking level or levels is limited to 75%. Required mid-block lanes and parks are not considered part of the computation of lot coverage.

Traditional ground level back yards are encouraged but they are not required if the open space requirements are satisfied in other ways. Given the need for parking at the ground level or in some cases, as in the mid-rise district, in the first two stories, there is the opportunity to elevate the rear yard above the parking where it will be immediately accessible to a living unit and where it will continue to fully serve its function of providing light and air to the housing.

Building Separation

The permitted proximity of buildings to each other is determined by the overall height of the building and whether the unit has more than one outlook (wall to the outside). Where units with only one outlook face each other or the side of another unit more distance is required to ensure adequate separations for privacy, view and daylight.

The minimum separations between residential building faces above the parking for various building types are as follows:

	Between buildings that are 2 stories over parking	Between buildings that are 3 stories or more over parking	All Other Combinations
front to ~~rear~~ front	30	30	30
front to rear	25	30	30
rear to rear	20	30	30
front to side	20	30	30
rear to side	15*	15	15
side to side	none	none	none

* required only if the surface provides required light

2.4 Streetwall

To create a continuous street wall, the prevailing pattern of residential building frontages should be continuous at the front property line on both streets and mid-block lanes, except for breaks in the street wall for entry to a courtyard, for mid-block lanes, or for stairs to a podium.

2.5 Building Bases, Sidewalk Setbacks

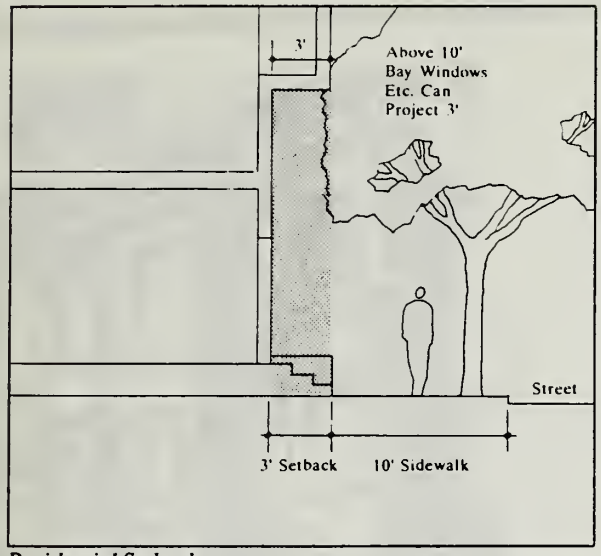
The base of buildings should be decoratively treated and embellished with architectural projections such as stairs, stoops, porticos, porches and other entry treatments, columns, planter boxes, bay windows, sills, window frames, belt courses, rusticated materials, and with landscaping.

Normally, the area (up to 10 feet per the Building Code and 7.5 feet per the Planning Code) above a sidewalk abutting a public street is required to be kept free of building projections in order to provide adequate headroom for pedestrian passage. Above that height, bay windows, etc., are permitted to project horizontally up to 3 feet. In Mission Bay residential areas, the width between the curb line and the front facade plane (generally 10 feet on streets and 6 feet on mid-block lanes) has been established to accommodate more extensive projections of the facade at the base of the building. Outside the public sidewalk right-of-way on residential streets is a 3 foot setback area (1-1/2 foot setback on lanes and streets adjacent to ~~parks~~). In this setback area, horizontal projections of stairs, bay windows, etc., are permitted provided that at least one third of the setback zone looked at in plan view is free of all projections except (1) minor architectural projections projecting up to six inches and (2) low landscaping projecting up to 2 feet on street frontages and 1 foot on mid-block lane frontages.

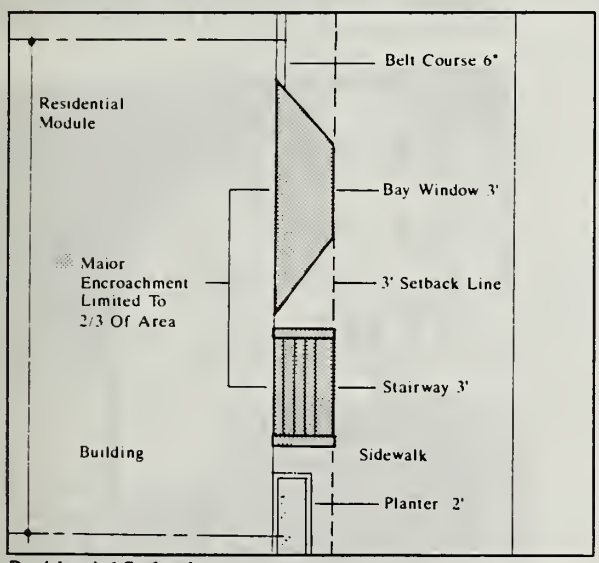
Projections above 10 feet are permitted only within the setback on streets and only 1-1/2 feet beyond the setback on mid-block lanes.

2.6 Building Articulation and Variation

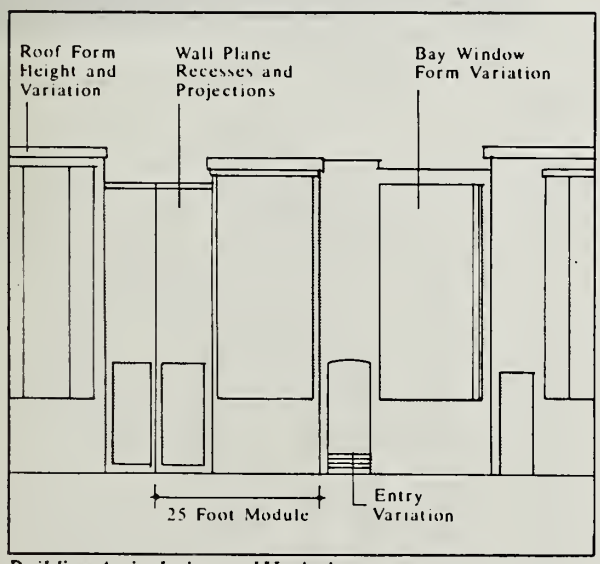
Three story buildings should be modulated into approximately 25 foot wide divisions typical of San Francisco row houses. As an alternative to the ap-



Residential Setbacks



Residential Setbacks



Building Articulation and Variation

proximately 25 foot modulation, four story buildings may be modulated into frontages no wider than 100 feet. Midrise buildings should similarly be modulated into frontages no wider than 100 feet wide. Whatever their width, the divisions should be expressed by clear vertical lines. Devices such as vertical recesses, changes in wall plane, changes in actual or apparent height, changes in materials and colors, and linked bay windows may be employed to express the vertical division.

The desired design variation may be achieved in a variety of ways:

- changes in facade recesses and projections
- changes in floor levels
- changes in roof forms or parapets or cornice treatments
- changes in the shape and location of garage and residential entries
- changes in window forms and patterns
- changes in materials and ornamentation

These various architectural elements should be formally organized into a distinctive facade of the requisite width, with the result that each division appears as a different architectural unit along the street and has the visual quality of having been designed by independent designers.

2.7 Entrance Frequency and Orientation

Frequent residential entries from the street help create the street-oriented, fine-grained urban neighborhood character desired in Mission Bay.

For the buildings following the approximately 25 foot modulation there should be an individual residential entry at least each modulation or shared entrances approximately every 50 feet. Housing for the elderly may be exempted from this provision where common areas with street entrances are located at grade.

For buildings following the 100 foot modulation residential entry should be through prominent entrance lobbies or central courtyards facing the street.

2.8 Orientation of Entries to the Street

Although apartment complexes clustered around central courtyards are permitted, lower level residential units facing the street should have their principal entrance from the street rather than from an interior courtyard in order to animate the street.

2.9 Bay Windows

Housing should make extensive use of traditional San Francisco bay windows.

2.10 Corners

Each street corner site in the neighborhood offers an opportunity of maximum views and sunlight to residential buildings. To realize this advantage and encourage architectural variety, the tallest portions of buildings should be located on corners. The corner should be given special architectural treatment to visually separate it from the other corner building sites fronting the street. Each of the four corner sites should be different in architectural appearance.

2.11 Light In Corridors

Long, double loaded corridors should be minimized. To the extent feasible, corridors should have daylight from windows, light wells or skylights.

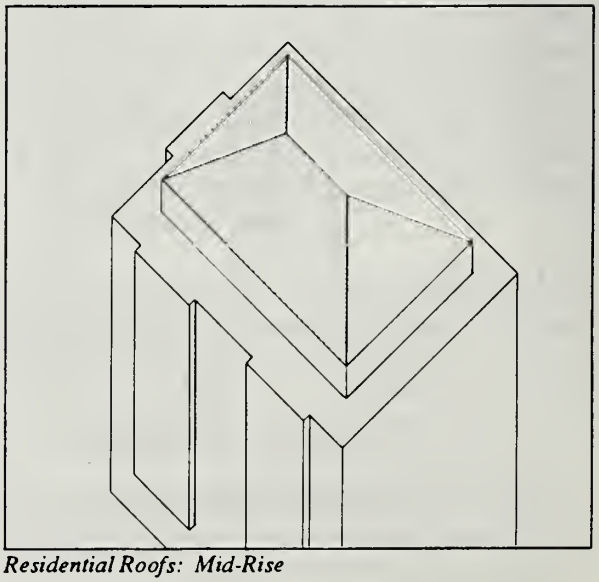
2.12 Roofs

Because Mission Bay building roofs will be looked upon by Potrero Hill and other Mission Bay residents, roofs should be non-reflective, low intensity colors. Enclosures for mechanical equipment should be an integral part of the building design. Height limits allow sufficient building volume to enclose and screen mechanical equipment from view and create visually interesting roof forms. Use of rooftops for terraces and gardens is encouraged. Such spaces can qualify as required private open space.

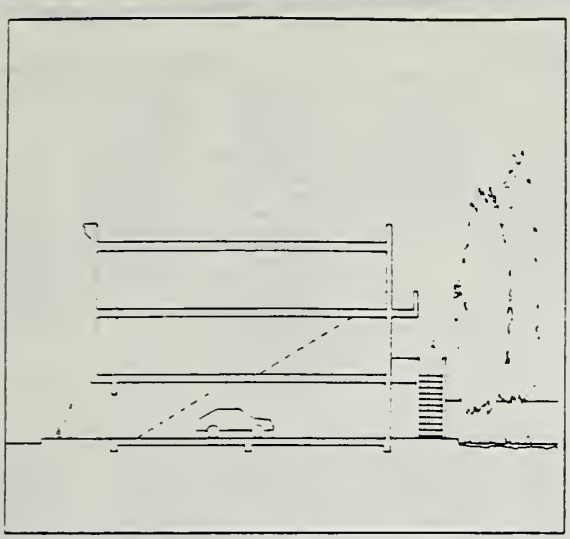
The mid-rise buildings will constitute the skyline of Mission Bay. Their tops should employ hips, gables, rooftop loggias and other devices to achieve visual interest and distinct silhouettes.

Traditional Bay Windows

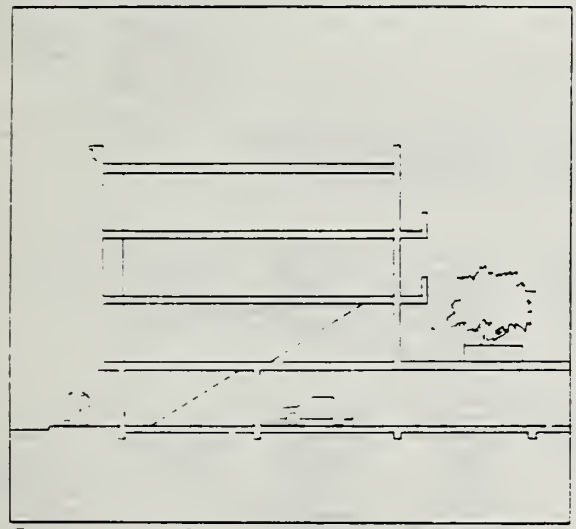
Taller Heights on Corners



Residential Roofs: Mid-Rise



Backyards



Courtyards above Parking

2.13 Open Space

Each residential unit has the following open space requirements:

Townhouses	125 square feet
Units in 3 and 4 story over parking buildings	80 square feet
Units in 6 and 8 story over parking buildings	64 square feet
Single aspect perimeter units screening parking	None

The open space may be private open space or common usable open space. The requirements can be satisfied in a number of ways and in a variety of areas:

Private open space

- traditional backyards
- patios, terraces, and balconies adjacent to dwelling unit

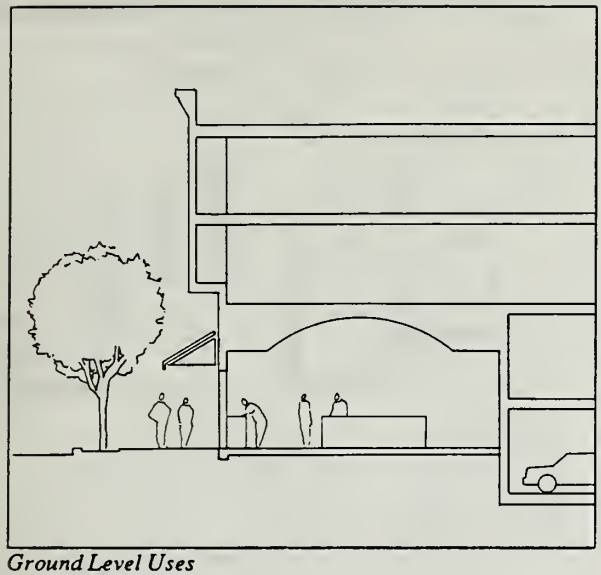
Common usable open space

- mid-block parks
- at grade courtyards
- building rooftop and parking podium gardens and terraces
- parking podium and building rooftop recreational facilities

The following guidelines apply to private and common usable open spaces.

TYPES OF OPEN SPACE	Private Open Space		Common Usable Open Space				
	Patios, front yards, back yards	Balconies	Play areas for Preschoolers	Play Areas for School Children	Places for Young Adults	Adult Facilities	Open Space for Seniors
PRIMARY USERS NEED	All ages The need for private open space is prevalent. The value of private open space lies in its privacy and the control that people can exercise over it.	All ages The majority of residents consider balconies a desirable feature of the residential unit. Balconies represent an important extension of the living space unto the outdoors.	Preschoolers Preschoolers need to play in viewing and calling distance of the supervising adults.	School Children Children of this age group need to socialize and engage in activities with other children. They need to develop coordination and motor skills. Opportunity should be given to realize all facets of play: social, motor, fantasy, imitation, and contact with natural or nature-like elements.	Young Adults Teenagers need informal gathering places to socialize with their peers in the vicinity of their homes where they can watch "the action" and where they can be seen.	Adults Relative to other age groups adults use residential open space least. Still, they need places to sit, relax, sunbathe, spend time with their families and/or residents and pursue activities of physical fitness.	Seniors Older people need places to sit, meet other people and actively or passively take part in outdoor activities.
DESIGN ELEMENTS **Location, Orientation, Site Design**	Locate private open space on the east, south or west side of the residential units. optimum	Preferably orient balconies to the south or west side; make them accessible from the main room of the dwelling unit. optimum	Place tot-lots in viewing and calling distance of respective residential units.	Locate play areas for school children where they disturb residential units least.	Locate teenage areas at the periphery of the housing development, on street corners or intersection of major pathways, where foot and automobile traffic are passing by. Orient teenage facility towards convenience store or favorite coffee shop.	Provide several spatially defined sitting areas of varying character throughout the residential development. Preferably locate spaces at grade, but can also be located at podium levels and roof tops.	Place several sitting areas throughout the residential area; locate at least one near the play area for preschoolers if present.
Size	Patios: 12' x 15'. Backyards 200 sq. ft. for singles elderly, 400-450 sq. ft. for families.	Minimum depth 6' Recommended length 12' for family units. Minimum area for single apartments is 55 sq. ft.	Surveys show that at peak periods no more than one third of the child population plays in outdoor areas. Therefore dimension play areas to accommodate 1/3 of the total child population at 75 sq. ft. per child.		varies	varies	varies
Enclosure	Establish clear boundaries between private open space and common open space.	Ensure privacy; to achieve this, balcony could interlock with the dwelling unit.	Provide security and a sense of enclosure through fencing, planting or change in grade level without blocking the view from and into the area.	Reduce sound through planting, earthen banks, walls or by depressing children's play areas.	Provide teenage meeting place defined by walls, ledges steps of various heights.	varies	Design areas to give a feeling of enclosure.
Facilities, Equipment	Storage closets, water faucets, electric outlets and outdoor lights are desirable.	Provide for flower boxes; equip with electric outlets.	Provide swings (preferably with rubber tires), sandboxes, wading pools, and climbing apparatus scaled down for the age group as well as tables and comfortable benches for supervising adults.	Outfit areas with play equipment such as swings, balancing bars, climbing structures. Make available materials such as wood blocks, boards, sand, rocks, earth and water.	Desirable facilities: basketball courts, table tennis, swimming pool, gym, playfield.	Equip some of the sitting areas with barbecues. Other desirable facilities are: jogging paths, tennis courts, softball areas, swimming pools, sauna and health clubs, garden plots.	Provide sitting areas with comfortable benches with back rests, arranged in a fashion to encourage socializing. Provide tables for games, flower plots, water fountains.
Surface	varies	varies	Provide hard surfaces for wheel toys and grass for tumbling.	Provide sufficient hard surface areas for children's play.	Provide paved surfaces as well as lawns and planted areas.		
Sunlight/Wind	Should receive full sunshine for at least 2 hours between 10 a.m. and 5 p.m.	Should receive full sunshine for at least 2 hours between 10 a.m. and 5 p.m. Protect from wind. Provide for optional shading.	Assure full sunlight throughout the year for the peak periods of play.	Assure full sunlight throughout the year for the peak periods of play.	Assure sunshine, protect from wind.		Protect sitting areas from wind. Provide options of sitting in the sun and filtered shade.
Noise	Shield open space from external noise						

Table 3-2: Guidelines for Residential Open Space



Ground Level Uses

2.14 Off-Street Parking

Individual townhouses should have covered resident parking with private access within the individual lot. Other units should have assigned parking within an aggregated parking garage with common access.

Curb cuts should be spaced and arranged to maximize on-street parking and minimize sidewalk interruptions. No curb cut or garage door facing the street or mid-block lane should be wider than 12 feet.

Screening of Parking

Two-level parking areas should be set back from the street and buffered by various active uses facing the street. These uses include retail uses where permitted, residential entrance lobbies and foyers, parking podium access stairs, common areas or community facilities, or single aspect residential units (units with windows only on the street and with direct entry from the street.

One level parking areas should be depressed at least half a floor (more if the water table permits) so that the first fully occupied residential floor with its doorway, windows, and more active facade, will begin only a few feet (no more than half a parking level) above the sidewalk. The lower base should be articulated with architectural projections, including entry steps, and with automatically irrigated planter boxes or other street landscaping. Another option is parking at-grade set back and screened with small, single-aspect residential units or retail uses where they are permitted.

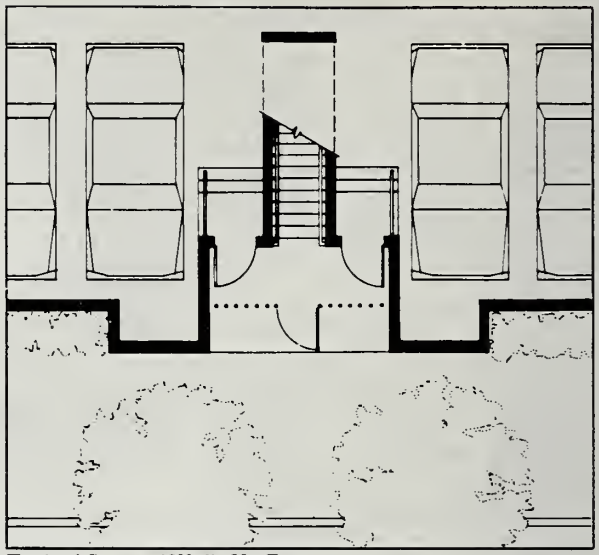
Where parking adjacent to the sidewalk cannot be avoided (e.g., where perimeter housing or retail are not feasible or desirable), the building base along the parking frontage should be articulated with architectural sidewalk encroachments and automatically irrigated landscaped planters.

All garage entries should have doors that are visually opaque and attractively designed. Openings to parking areas other than garage doors should be limited to those required in the Building Code for ventilation. Openings should be well

above or below eye level and should be covered with visually attractive screening to prevent the parking and its lighting from being seen from the street.

Garage Access to Units

Secured routes from parking to units should be provided. Direct access from parking levels to units is acceptable. However, when the top of a parking podium constitutes in effect a common yard for the residential buildings, transfer at the podium level may be desirable. It would activate the pedestrian spaces on the podium and provide the residents with an opportunity for interaction and a sense of community.



Typical Secured Walk-Up Entry

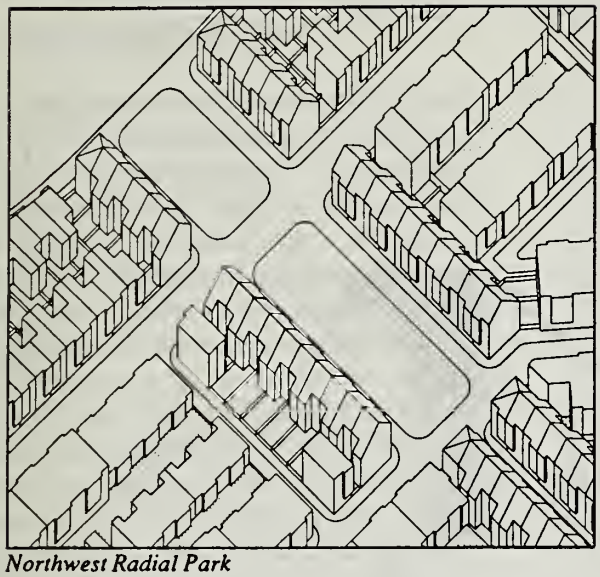
Parking Podium Surface

All of the surface of any parking podium not within a building footprint should be attractively finished in landscaping or walking surfaces. Tar and gravel is not appropriate.

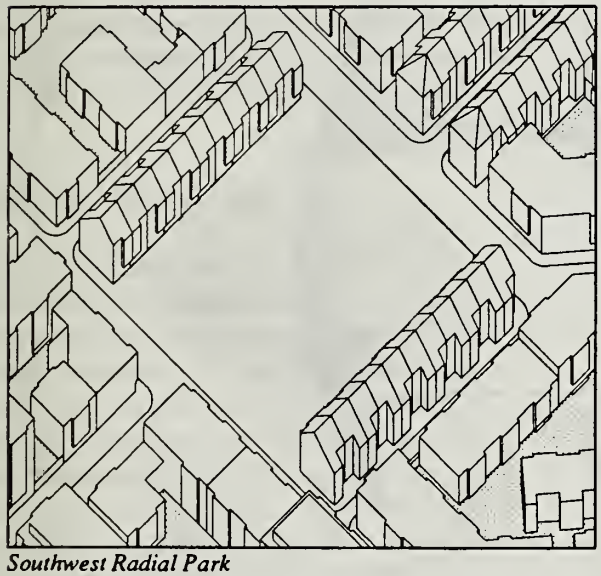
2.15 Special Elements

There are certain housing sites in the Mission Bay neighborhood that offer opportunities to create uniquely identifiable subdistricts. The sites are based on the location of amenities or other features that distinguish one part of the neighborhood from another.

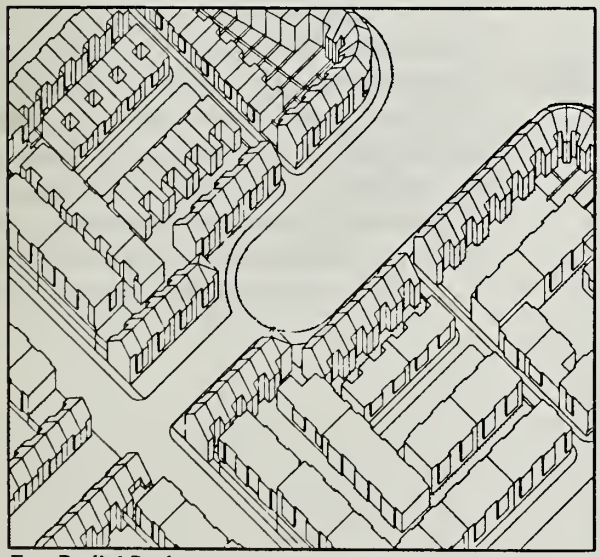
Realizing the diversity of places through building design will contribute importantly to the neighborhood livability. Therefore, architectural development in the residential areas of Mission Bay should take two distinctive but complementary approaches. One relates to the residential areas facing the formal open spaces in Mission Bay and the other applies to other residential areas.



Northwest Radial Park



Southwest Radial Park



East Radial Park

Housing Along Park Edges

There are a number of large enclosed open spaces in the Mission Bay Plan. To dramatize the formal symmetrical nature of each space, and to assure that the buildings fronting each park create an identifiable place within the neighborhood as well as strong spatial definition to the park, an architectural solution for the buildings facing the space should be nearly uniform, linking the building with clear, self-evident rhythmic patterns. These patterns should be three dimensional and stronger than those for buildings facing ordinary streets. Buildings along park edges should be of the same building type and size and should draw on a common architectural vocabulary.

It is important that the architectural approach to each park edge be different from the others in order to achieve the desired diversity. If all of the edges of the park are not incorporated into a single development, the pattern set by the initial development should be required to be followed by succeeding developments.

The Crescent block is a special focal element within the Mission Bay Plan. While most other housing elements of the residential neighborhood are patterned after traditional San Francisco row house neighborhoods, the Crescent has a more monumental intent. Its models are the Royal Crescent at Bath, Regents Park in London, and Karl Marx Hof in Vienna. Its role as a neighborhood focus should be like that of the Palace of Fine Arts in the Marina which gives identity to the blocks of continuous residential fabric around it.

The building or buildings around the crescent should be designed as a single unit. The intent is to create a building which constitutes a special and memorable landmark, rich in surface and detail, with spacious lobbies and a commanding presence around Crescent Park. The segments of the crescent facade should have strong, consistent, scale-making elements.

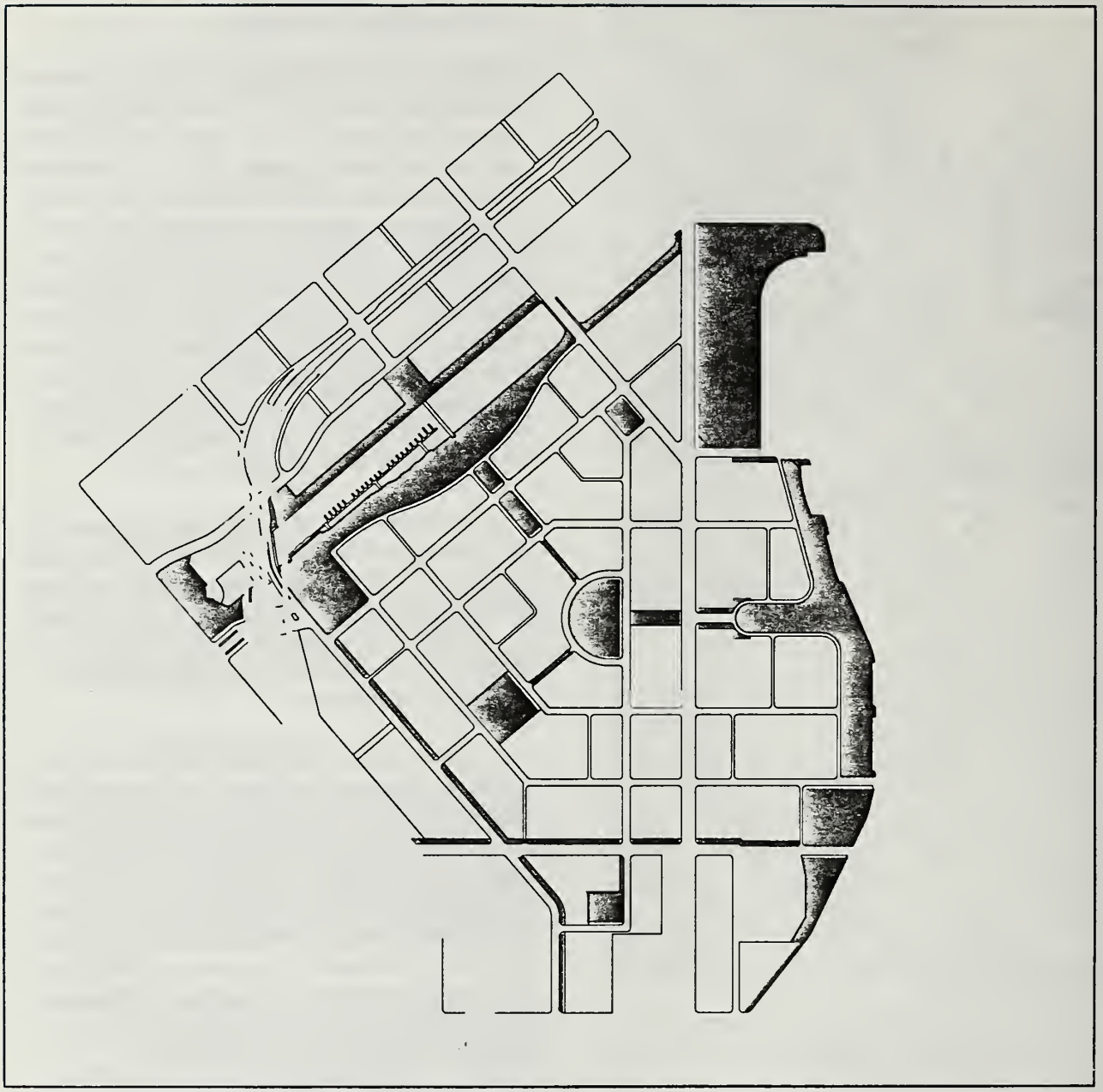


Figure 12: Special Building Elements

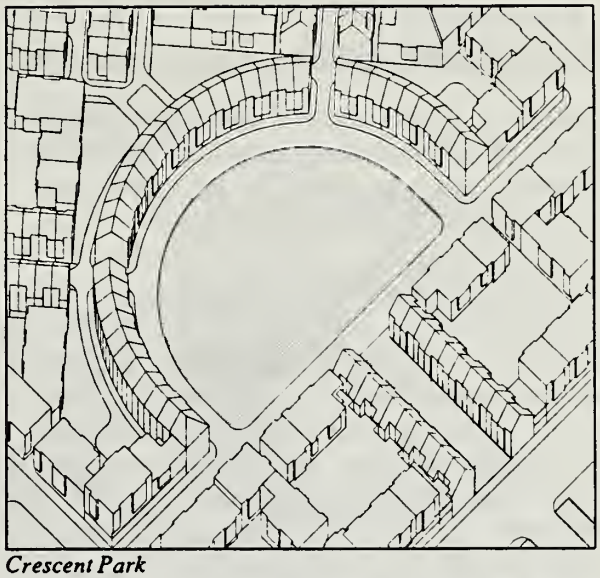
Parks

Waterfront Edges

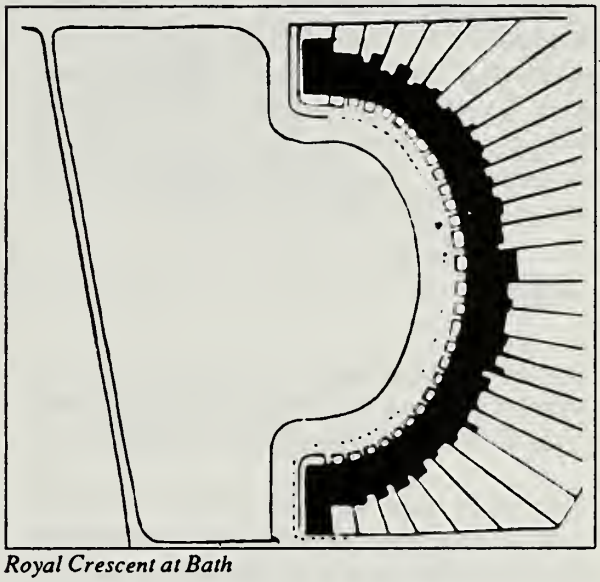
Park Edges

Housing Along Waterfront Edges

There are three locations, Mission Bay Green and both sides of China Basin Channel, where residential buildings define shoreline parks. Each of these building edges should be designed in ways that make the buildings architecturally harmonious with each other. Waterfront edges differ from park edges in that greater variety between buildings is acceptable. However, the degree of variety for each edge should be consistent for its full length. Heights of buildings facing Mission Bay Green and the southern edge of China Basin Channel should be uniform and limited to three stories. The character of shoreline housing should reflect its unique location in the city (e.g., the housing fronting on the Marina Green) and be different from nearby housing not facing the shoreline. It is important that the architectural approach to each shoreline be different in order to realize the desired diversity.



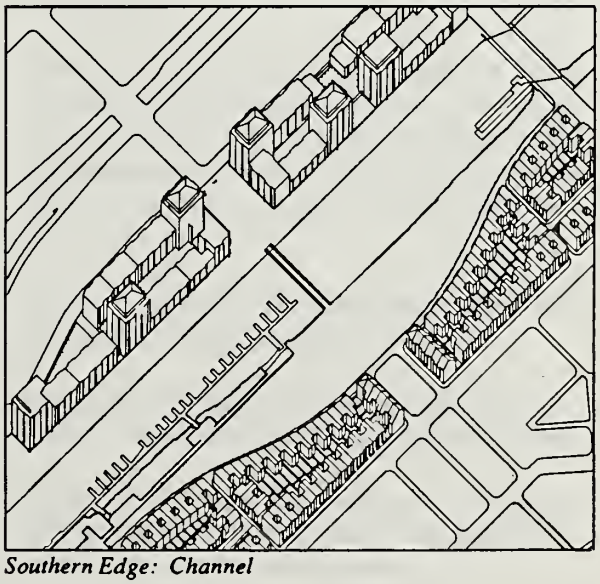
Crescent Park



Royal Crescent at Bath

2.16 Other Residential Areas

To maximize the impact of the formality of the buildings fronting on the open space it is important that the residential development elsewhere offers greater diversity. Whereas the buildings fronting the open spaces are characterized by a high degree of uniformity, the buildings in the surrounding areas should contrast building type and size. However, to assure that these areas also develop a special Mission Bay identity and fine-grained character, different developments in the same general area should use some of the same architectural features and motifs and include some common elements of those buildings around the nearest park edges. This use of common elements between projects and the architectural variety within projects called for in other guidelines are intended to create areas composed of a number of different projects which develop a special Mission Bay identity and fine grained character.



Southern Edge: Channel

2.17 Community Rooms

In addition to the required open space, larger projects (50 or more units) should include indoor community space for use by residents for recreation, child care and/or other activities.

2.18 Other Issues

Certain water and energy conservation measures described in the Mission Bay Water and Energy Conservation Plan (which is part of the Development Agreement) have design implications and should be considered in the manner described in that document. Issues such as location, size and design of play spaces for children, common facilities such as laundry rooms, meeting rooms and recreation facilities, fencing or screening of private space in relationship to public areas, storage of recyclables, garbage and mail service and utility meter accessibility are not covered in these guidelines. They will be considered as part of design review of individual projects.

RECREATION AND OPEN SPACE

Recreation and open space in Mission Bay will play vital roles in establishing the new neighborhood's character and livability. The developed areas here will be fairly dense and active areas. The 68 acres of parks and open space throughout the plan area will provide needed quiet beauty and respite from the urban pace of life.

This section describes the location, scale and distribution of the open space system planned in Mission Bay, including its shoreline amenities, neighborhood parks and recreation areas. Recreation and open space design guidelines elaborate on the physical character, predominant uses and landscape features of these land uses.

An Open Space System

OBJECTIVE 14: PROVIDE MAJOR OPEN SPACE AREAS AND A VARIETY OF OPEN SPACES ADEQUATE TO SERVE THE MISSION BAY COMMUNITY AND TO AUGMENT THE CITY'S OPEN SPACE NETWORK.

Policy 1: Create parks, open space and recreational facilities to serve the needs of Mission Bay residents, workers and visitors of all ages.

Policy 2: Provide a major open space area which adds to the citywide open space system and takes advantage of the shoreline location of Mission Bay.

Policy 3: Create an open space network which provides walking, jogging and bicycle paths between recreation and open space areas throughout Mission Bay, and provides connections to citywide pedestrian, bicycle and open space systems.

Policy 4: Ensure wind protection for public open space where feasible.

Policy 5: Provide open spaces that are accessible to the physically disabled and the elderly.

Policy 6: Orient development and parks, public and private open space, and pedestrian areas to maximize solar access.

Policy 7: Enhance parks and open spaces by maintaining view corridors from such areas.

Policy 8: Provide a variety of open spaces to serve neighborhood commercial areas, office, commercial and light-industrial areas within Mission Bay.

The first system of parks in San Francisco's eastern shoreline will be developed in Mission Bay. It will offer two large shoreline parks, internal neighborhood parks and plazas associated with shopping all linked together by open space corridors, as Figure 13 illustrates.

Open spaces in Mission Bay are differentiated by location, scale and function. On the perimeter of the plan area are readily accessible parks that take advantage of unique citywide amenities: China Basin Channel and San Francisco Bay. Because of the broad interest and appeal of these areas, they will be visited and used by residents throughout San Francisco and perhaps the Bay Area.

Internal to the neighborhood are numerous smaller open space areas, common to most San Francisco neighborhoods. Tucked away in the housing area, they will primarily be used by neighbors. Crescent Park, adjacent to Long Bridge Street, will be the meeting place for Mission Bay residents and shoppers.

Two large parks contribute substantial acreage for public access at the edges of the 3,400-foot long China Basin Channel and along the Bayfront. Internal to the neighborhood are smaller parks which will be used primarily by the residents or workers in buildings surrounding them. a wetlands will occupy the southern edge of the mouth of China Basin Channel. There is to be a complete system of open space corridors linking these parks and the other land uses in the neighborhood. The corridors take the form of linear plazas or park pathways that will make walking, jogging and bicycling much easier and safer than is often the case in intensely urban areas. All Mission Bay open space will be accessible to "physically disabled persons."

Table 3-3
Major Public Open Space Areas

China Basin Channel Promenades and Parks	15.5 acres
China Basin Channel (Open Water)	12.5 acres
Mission ~~Point~~ Park — Bay wetland: 10.8	~~12.0~~ acres
Mission Bay Green and Fountain Park	12.7 ~~12.4~~ acres
Crescent Park	2.4 acres
Long Bridge Plaza	0.9 acres
Northwest Radial Park	1.2 acres
Southwest Radial Park	2.6 acres
Entry Park	0.5 acres
Minnesota Park	0.9 acres
Park Pathways	3.2 acres
MAJOR PUBLIC OPEN SPACE 63.2	~~64.1~~ acres

Note: This table does not include minor open space that is scattered throughout the plan area.

Mission Bay Green forms one end of the central open space corridor in Mission Bay which connects the Green with Crescent Park in the heart of the neighborhood. Along this corridor, a pedestrian will be able to leave the bayfront and Fountain Park, walk between housing on a paved walkway, cross Third Street to Long Bridge Plaza until reaching Long Bridge Street and Crescent Park. Surrounded by housing and adjacent to the neighborhood commercial street, this crescent-shaped park will act much like Washington Park in North Beach. It will be a pleasant gathering place adjacent to Long Bridge Street with its shops and community facilities.

From Crescent Park one corridor extends north to the Channel and another toward the MUNI Metro/CalTrain station to the southwest. This will guide pedestrians en route from Long Bridge Street to a China Basin Channel destination or to the station. A pedestrian bridge across the Channel at Fifth Street will link uses on both sides of the waterway.

Internal to the Mission Bay blocks will be private or semi-private common usable open space. Within residential blocks, there will be either at-grade rear yards and at-grade mini-parks or podium level open space. In office areas, at-grade

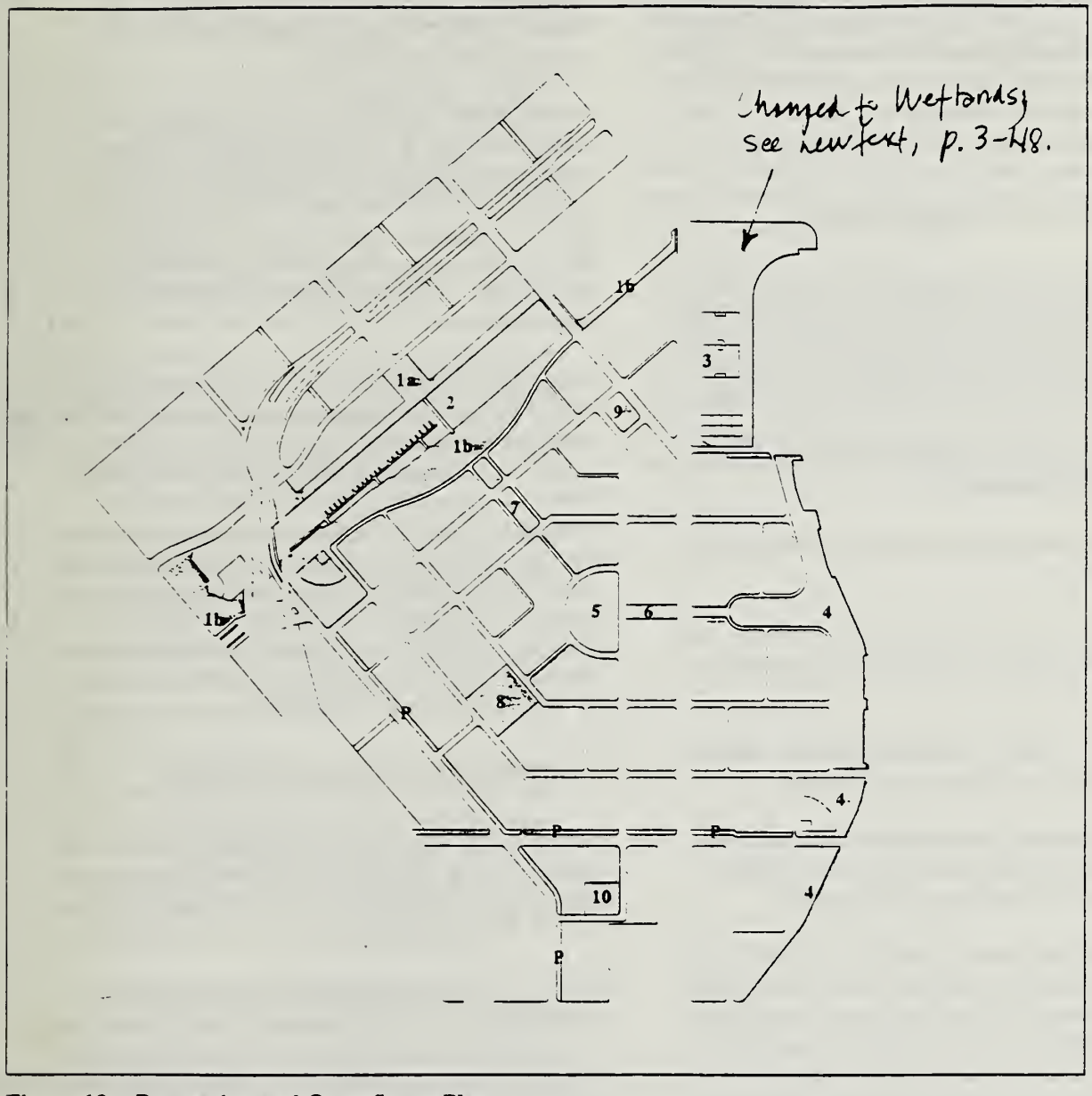


Figure 13: Recreation and Open Space Plan

Public Open Space

Recreation Fields

1a China Basin Channel - Northern Edge

1b China Basin Channel - Southern Edge

2 China Basin Channel (Water)

3 Mission ~~Point~~ Park ~~and Playing Fields~~ Bay wetlands

4 Mission Bay Green and Fountain Park

5 Crescent Park

6 Long Bridge Plaza

7 Northwest Radial Park

8 Southwest Radial Park

9 Entry Park

10 Minnesota Park

P Park Pathways

mid-block passageways will divide office blocks and office projects will have various kinds of open spaces, including plazas and courtyards. All of these small open spaces will contribute to Mission Bay's landscape character and are part of the neighborhood's intricate open space network.

Shoreline Open Space

OBJECTIVE 15: MAINTAIN AND ENHANCE SIGNIFICANT SEGMENTS OF THE CENTRAL WATERFRONT, BAY AND CHINA BASIN CHANNEL SHORELINE FOR PUBLIC ACCESS AND RECREATION.

Policy 1: Provide maximum feasible public access along all shorelines.

Policy 2: Maximize the interface between land and water.

Policy 3: Provide a variety of recreational opportunities along the shorelines accessible to the public.

Policy 4: Preserve and enhance the special amenities of the China Basin Channel.

Policy 5: Assure that shorelines, natural areas, parks and recreation facilities are accessible to the physically disabled and the elderly.

Mission Bay occupies an significant portion of San Francisco's central waterfront. It surrounds China Basin Channel, the sole vestige of the original 260 acre Mission Bay, overlooks China Basin itself and is oriented toward San Francisco Bay. These waterfront aspects represent tremendous recreational and aesthetic amenities that the development of Mission Bay will further enhance.

China Basin Channel is a 200 foot wide navigable waterway with 6,800 feet of shoreline on its northern and southern sides. Public access will be provided all along the Channel's edges. On the north, a terraced plaza area will form the Channel's northern edge. At Fifth Street, the promenade will become a broader plaza that can accommodate major community-wide gatherings, such as weekend concerts, overlooking the Channel. The southern Channel edge will be softer, with slopes to the water's edge where wildlife may visit. The Channel's edge will abut Channel Green, a place for picnics and lawn games.

Bay Wetlands
Mission ~~Point~~ Park will also take advantage of a shoreline setting. It will make the edge of China Basin, a previously inaccessible vantage point, a place where waves, tides and wildlife can be observed. It includes about 700 feet of shoreline edge, along which paths ~~providing public access will meander~~. ~~The interior space will be devoted to playing fields.~~ will provide public access.

Extending for 3,000 feet parallel to the San Francisco Bay shoreline, Mission Bay Green is the other major park that capitalizes on this shoreline setting. Totalling ~~12.4~~ acres, the park will be informal, accommodating pick-up sports as well as organized recreation. Primarily though, this broad expanse of lawn with scattered tree clusters will afford hundreds of visitors at a time the chance to enjoy the San Francisco waterfront and all types of outdoor activities. Included as a key element of the park will be a water element designed in part for wading and playing in the water.

with its Fountain Park 12.7

Recreation Opportunities

OBJECTIVE 16: DEVELOP PARKS AND OPEN SPACE WITH LANDSCAPING AND DESIGN FEATURES THAT DIFFERENTIATE KINDS OF USE.

Policy 1: Provide parks and open spaces for passive and active recreation.

Recreation sites include those in Mission Bay Green, in Mission ~~Point~~ Park ~~and Playing Fields, plus a recreation site across from the school site.~~ They are dispersed within the plan area so that all households and workers will have playfields nearby. ~~The playing fields at the northerly end of Mission Bay Green may be used for softball, soccer and other sports~~. The southerly end of Mission Bay Green will accommodate a softball field for any number of organized and informal sports. Basketball, volleyball or tennis courts may be added to diversify the active recreation opportunities here.

Bay Wetlands and

Across the street from the school site and adjacent to the Channel is another recreation site of 2.8 acres. It is part of Channel Green Park. It can support one or two softball fields and will be a turf area suitable for informal gatherings and sports as well. Each of these recreation sites is a neighborhood resource but the playing fields can also meet some of the existing citywide demand for fields for league play.

Neighborhood Parks

OBJECTIVE 17: LOCATE PARKS AND OPEN SPACES SO THAT THEY ARE WELL DISTRIBUTED THROUGHOUT MISSION BAY AND TAKE FULL ADVANTAGE OF EXISTING NATURAL FEATURES.

Policy 1: Provide suitable open space and recreational facilities within comfortable walking distance of all Mission Bay residences.

Policy 2: Provide suitable open space convenient to the working population within Mission Bay and nearby areas.

~~Up to~~ About 16,000 people will be living in the Mission Bay neighborhood, and about 14,500 of them will reside south of the Channel. Many of these residents will be families with children or active households for whom nearby parks have great value. Mission Bay will supply this resource, in parks distributed throughout the plan area.

They will function as sunny playgrounds, tot lots and needed open space in these fairly dense neighborhoods. They will be viewed from many windows in the housing surrounding them, making them safe places for children and teenagers. The park pathways will be convenient for daytime exercise. Similarly, the edges of China Basin Channel are to be settings -- plaza like on the north side and rolling green space on the south -- where workers and residents may converge.

OBJECTIVE 18: MAINTAIN AND IMPROVE THE QUALITY OF THE BAY AND SHORELINE AREAS, INCLUDING CHINA BASIN CHANNEL AND ITS WATERS.

Policy 1: Manage the City's combined storm sewer system to avoid unnecessary overflows into China Basin Channel and reduce the adverse effects of such overflows.

Overflows into China Basin Channel have been reduced from over 40 per year to about 10 annually through improvements to the City's sewer system. Outfalls have been redesigned to include baffles and weirs to reduce the discharge of solids and floating materials. These improvements have had a beneficial effect on Channel water quality.

Recreation and Open Space Design Guidelines

1. GENERAL INTENT

The intent of the Recreation and Open Space Design Guidelines is to acknowledge the two most dominant open space features at Mission Bay -- China Basin Channel and San Francisco Bay -- and the linkages between them. It is important to provide distinct overall character for Mission Bay open space.

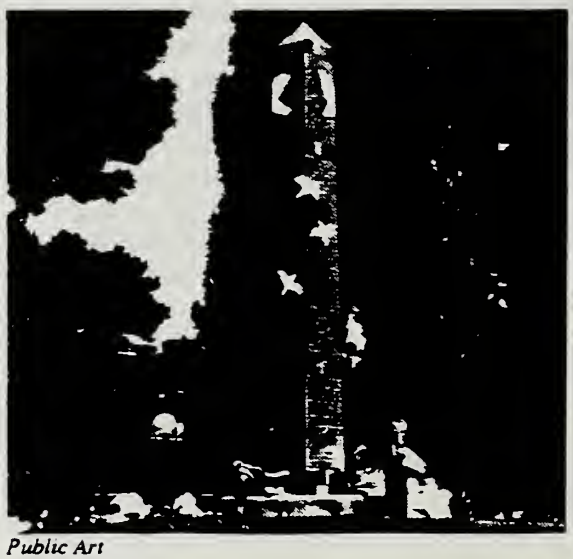
The character of the open space responds to the overall plan form in that it is formal at its center and generally less formal at its periphery. Open space, planting and paving patterns are formal and geometric at Crescent Park and Long Bridge Plaza (the commercial/cultural heart) and become freer and more natural as they approach the Channel and Bay.

South of the Channel the major open space system consists of a central crescent and three radiating spokes creating long axial vistas which are punctuated by water features. Two of the spokes terminate at major parks at the water's edge at the Bay on the east and the Channel on the north.

The landscaped street pattern in combination with the open space network extends towards the Channel and Bay. Main open spaces such as the Mission Bay Green orient to San Francisco Bay while continuous plazas, walkways and greens focus on China Basin Channel. Mission Bay Wetlands Park creates a natural bay shoreline habitat at China Basin. The Mission Bay Green returns this part of the shoreline to the public.

China Basin Channel

San Francisco Bay Waterfront Uses

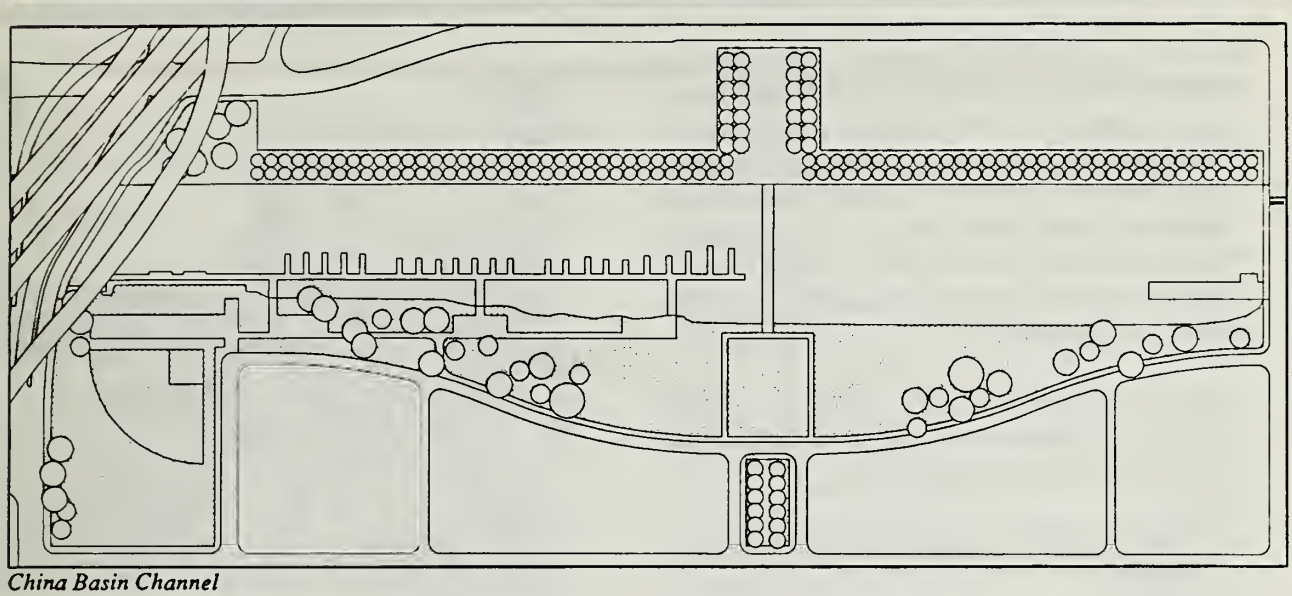


Public Art

1.1 Public Art

One percent of the construction development costs of the open spaces (as described in the Standards Report) is to be used for publicly displayed art work. The art works may be freestanding or may be part of various utilitarian structures in the open space. The water features called for in various open space locations in the guidelines that follow can be designed to qualify as art works. (For more detail see Art Guidelines, published by Department of City Planning.)

The original shoreline of Mission Bay should be indicated on the ground surface through appropriate markings.



China Basin Channel

2. CHINA BASIN CHANNEL FRONTAGE

2.1 Intent

China Basin Channel is a unique landmark in the City of San Francisco and the Mission Bay plan area. This navigable channel, marked by two historic steel truss drawbridges, is the last remaining vestige of the original Mission Bay, which covered most of the plan area. It supports an active houseboat community and a variety of shore and water birds. The Channel is a strong focal point and form-giver to the Mission Bay project and represents a literal and symbolic tie with San Francisco Bay. The treatment of its edges should provide an attractive separation between the major office and residential uses on the north side of the Channel and the residential community to the south, while becoming a unifying seam which visually binds the diverse uses along its banks in a strong urban statement.

The intent of the open space along the Channel is threefold. It is to (1) establish outdoor continuity or context for the overall Channel environment; (2) provide the recreational and functional amenities associated with adjacent uses; and (3) visually integrate the architectural forms with the linear, dynamic character of the Channel. The edge treatments are critical factors in establishing this transition.

The Plan proposes a structural pattern of paving and terraces which enables a variety of edge treat-

ments to be introduced within it. The pattern is dominant along the urban edges and more recessive in areas where the edge is soft and natural. Hard edges along more public, hotel, office, retail areas, contain planters, sitting ledges and walkways. Softer edges incorporate meandering walkways, limited rock rip-rap, boulders, wood pilings and natural earth banks and planting within the structural pattern.

Because the Channel is tidal, care must be taken with the way materials are used so that at low tide the edge is attractive in appearance.

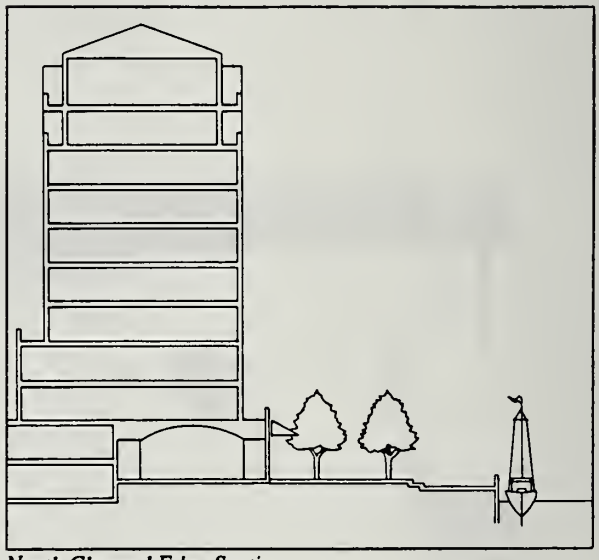
Waterfront Edge Concept

2.2 Northern Edge - from Fourth to Owens Streets

Intent

This space is intended to be urban in character with generally hard surfaces and edges responsive to adjacent residential and commercial uses and to its sunny orientation.

The plaza located at the termination of Fifth Street is visualized as the major community-wide public gathering place along the Channel's northern edge, and as such should have a predominantly open and hard surfaced area of at least 125 foot depth and 200 foot width suitable for major public gatherings. Commercial frontages should occur on the plaza.



North Channel Edge Section

A water fountain, on axis with the pedestrian corridor and visible from Crescent Park, is encouraged but not required. An appropriately designed fountain would qualify as part of the public art contribution of the office space north of the Channel. The Channel edge east of the plaza to Fourth Street is also envisioned as a community-wide gathering place with an average width of 60 feet. This edge should be stepped down from the commercial areas fronting on the space in a series of walkways, terraces and planters to form a sunbowl amphitheater suitable for outdoor lunches, walking and sitting in the sun.

The Channel edge west of the plaza is envisioned as a more local neighborhood place with an average width of 60 feet which is intended to provide sufficient space for a gracious walkway

China Basin Channel Waterfront Northern Edge Concept

and sitting areas with an ample buffer from the residential frontage.

Guidelines

Predominant Uses

These include strolling, sitting, sunning and eating. The Channel plaza will be a place for gatherings, exhibits and festivals.

Character Elements

These include paving, steps, terraces, bollards/railings and seating.

Planting

Planting should be largely continued at grade or in raised planters. Where the plazas and large open space parcels meet the streets, the formal street tree planting patterns should be blended into the open space planting design.

The lower ground plane should be predominantly evergreen, while the trees forming the strong vertical statements should be mixed evergreens and deciduous. Trees on the selected list have distinct character; many are multi-trunked. Color displays will add further dimension to the overall scheme. All planting configurations should recognize the important views from surrounding buildings.

Planting Palette

Character varies from plaza and pavement landscapes to lawn and more natural/informal statements. All planted areas should be primarily evergreen with some deciduous trees. All subgroups within the China Basin Channel frontage should employ the following palette:

Trees:

Cupaniopsis anacardiodes	Carrot Wood
Camphora officinarium	Camphor Tree
Arbutus menziesii	Madrone
Pyrus kawakami	Evergreen Pear
Melaleuca leucadendra	Cajeput Tree
Melaleuca linariifolia	Flaxleaf Paperbark
Myoporum laetum	Myoporum
Maytenus boaria	Mayten Tree
Eucalyptus (sp.)	Eucalyptus
Liquidamdar styraciflua	American Sweet Gum
Pyrus calleryana	Ornamental Pear
Crataegus (sp.)	Hawthorn
Seratonia siliqua	Carob Tree
Pittosporum (sp.)	Pittosporum
Sophora japonica	Japanese Pagoda Tree
Fraxinus (sp.)	Ash
Grevillea robusta	Silk Oak
Tristania conferta	Brisbane Box
Populus	Poplar

Shrubs:

Acacia longifolia	Sydney Golden Wattle
Arbutus unedo	Strawberry Tree
Carissa grandiflora	Natal Plum
Escallonia fradesii	Escallonia
Grevillea noelli	Grevillea
Griselinia littoralis	Griselinia
Pittosporum tobira	Tobira
Prunus laurocerasus	English Laurel
Raphiolepsis (sp.)	Raphiolepsis
Trachelospermum jasminoides	Star Jasmine

Ground Cover, Vines and Hanging Plants:

Cotoneaster dammeri	Bearberry Cotoneaster
Fragaria chiloensis	Wild Strawberry
Rosmarinus officianallis	Rosemary
Bougainvillea (sp.)	Bougainvillea
Clematis (sp.)	Clematis
Hedera helix	English Ivy
Parthenocissus (sp.)	Creeper
Ficus pumila	Creeping Fig
Tecomaria capensis	Cape Honeysuckle
Mandevilla suaveolens	Chilean Jasmine
Solandra guttata	Cup-of-Gold-Vine

Furniture

Stationary seating should be designed integral with planters and terraces where they occur; benches should be provided where they do not. Large portions of the Fifth Street Plaza should remain open to accommodate exhibits and displays. Trash receptacles should also be fixed and integrated within planter, terrace and architectural features. A drinking fountain should be provided.

Lighting

Area lighting should be low-level standards of a pedestrian scale. Poles should be no more than 15 feet high and be of a distinctive design that is used throughout the lined open space network in Mission Bay. Pathway and corridor lighting should be integrated, where possible, with planters, railings, bollards and architectural features. Uplighting of tree canopies is encouraged for path lighting as well as effect.

2.3 Northern Edge - from ~~Owens~~ Sixth Street to Seventh Street

Intent

This space should be informal in character and function as a transition zone between the existing industrial uses west of Seventh Street and the newly developed areas of Mission Bay east of I-280. There should be a soft edge treatment, with such plants as cordgrass, pickleweed and salt marsh lavender.

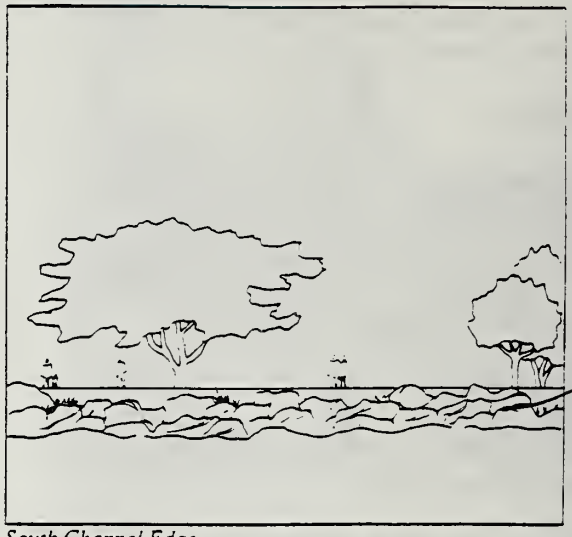
Guidelines

Predominant Uses

These should include walking, sitting and sunning.

Planting

Planting on the park edge should be informal and a mixture of deciduous and evergreen trees. The maintenance area of the pump station should be screened with evergreen plant material.



South Channel Edge

Rock Steps

2.4 Southern Edge - from Owens Street to Third Street

Intent

The open space strip will vary in width from 50 to 200 feet, from building face to the mean high tide at the Channel edge, with the major expanse of open space occurring at the Fifth Street axis. The water edges should be natural and soft, while the paved areas should be set back and responsive to adjacent residential and commercial edges. It will be both a neighborhood and citywide serving open space.

encouraging a shoreline estuary park, with such plants as cordgrass, pickleweed and salt marsh lavender.

Guidelines

Predominant Uses

These should include strolling, sitting, eating and public gatherings.

Planting

Planting should be more heavily concentrated at both ends of the park, while the center portion of the park is treated more like a meadow. That landscape treatment will help reinforce the

Informal Tree Masses

Natural Edge

delete

legibility of the central space as the main public assembly area of the park. However, the entire space should be designed in a manner that is inviting to the general public.

Trees in grassed/ground cover areas should be at-grade and informal in pattern. Planting should embody a similar palette of plant material to that used on the northern side of the Channel, but the geometry on this side should be formed by earth grading and the planting design. Plant material should be primarily evergreen with trees both clustered in groves and set in isolated patterns, all recognizing the important views form the surrounding buildings. Marsh vegetation and salt-tolerant shrubs should be used within the soft, natural Channel edge.

Plant Palette
(see attachment)

Furniture

Seating and picnic tables of wood are preferred over metal. Trash receptacles should be fixed and integrated within the surrounding design context. A stepped drinking fountain and toilet facilities should be provided in a convenient location.

Lighting

Area lighting should be low level standards of a pedestrian scale. Pathway and corridor lighting should be the same as that of the northern edge and should be integrated where possible with plantings. Uplighting of tree canopies is encouraged for additional path lighting as well as effect.

Channel Edge

The water's edge should be soft and natural in appearance (earth banks, ~~wood pilings~~ and marsh vegetation, ~~rock rip-rap terraces~~). ~~Wood decking may be particularly appropriate between Third and Fourth Streets.~~

The soft edge should enhance and expand a publicly accessible shoreline park and encourage a shoreline estuary.

There should be a pathway for walking and jogging which runs the length of the Channel near its edge and which connects with the walkway on the Owens Street linear park and with the walkways on the Bay front to the east.

The present use of the pier off the Fourth Street Bridge as a restaurant with outdoor dining is a

PLANT CHART FOR NATURAL EDGE

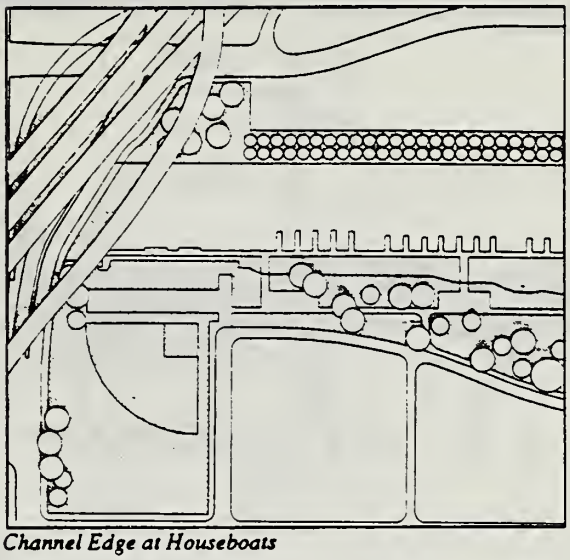
CORDGRASS	California cordgrass (Spartina foliosa)
MARSH PLAIN	Pickleweed (Salicomia virginica)
	Fleshy jaumea (Jaumea camosa)
	Salt grass (Distichlis spicata var stolonifera)
TRANSITION	Frankenia (Frankenia grandifolia)
	Salt marsh lavender (Limonium califomicum)
	Gumweed (Grindelia humilis)
REFUGE	Dwarf coyote brush (Bacchairs pilularis 'Twin Peaks")
	Fathen (Atriplex patula va hastata)

good one for the area and whether retained, rehabilitated or redesigned is encouraged.

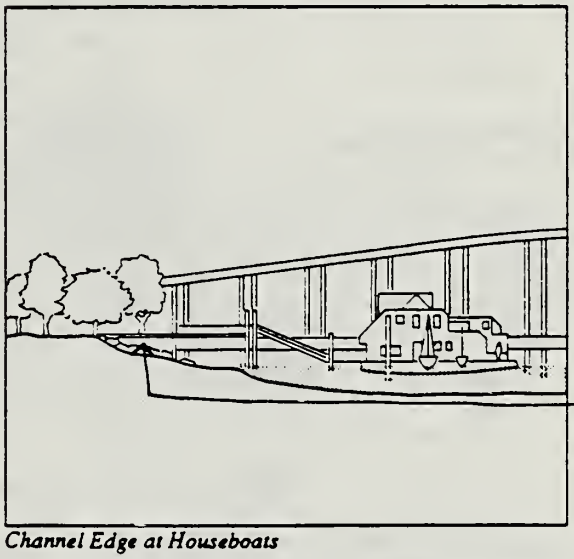
The pedestrian bridge should be located on the Fifth Street axis to extend the pedestrian corridor directly across the Channel. It must be designed to allow navigation to continue.

Channel Edge at Houseboats

~~Twenty-four~~ parking spaces for the houseboat community should be distributed along the three entrance piers. ~~Twenty~~ additional parking spaces should be provided near the boatyard, at the western end of the park. A narrow roadway should be provided between the park and the houseboat community in order to provide adequate access to the piers. Storage and trash receptacles should be provided at every entrance pier. Low footcandle levels of lighting should be provided in parking areas for safety. Directional or canopied lighting is preferred to avoid undesirable intrusion into residences.



Channel Edge at Houseboats



Channel Edge at Houseboats

2.5 Southern Edge - Owens Street to Seventh Street

Intent

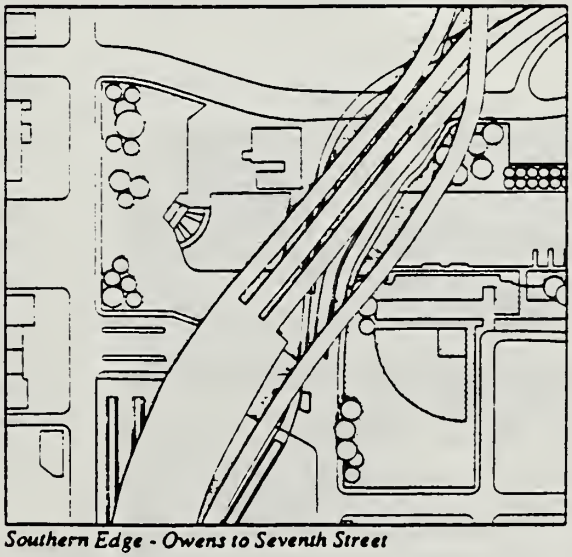
This area should be of the same character as the area from Owens Street to Third Street. The Channel's edge should be soft and natural in appearance, and continue the overall channel character established between Owens Street and Third Street. The area should contain pathways, sitting areas and landscaping which helps scale down the presence of the freeway structure. The park should act as a gateway to Mission Bay from the surrounding neighborhoods and workplaces to the west, establishing vital pedestrian links into the heart of Mission Bay.

Predominant Uses

These will include sitting, walking and transferring to various modes of transportation.

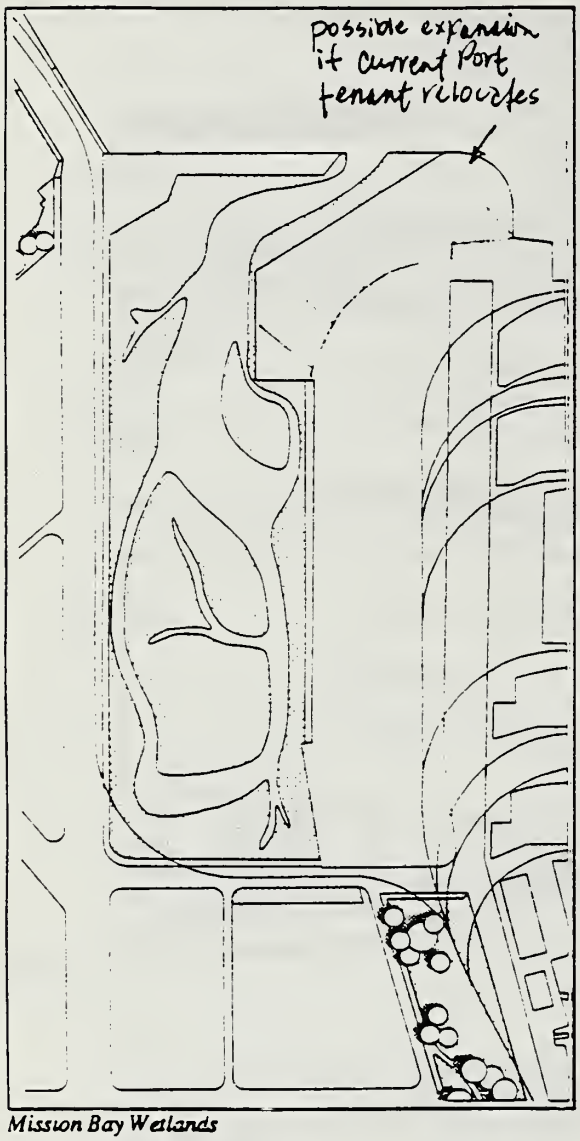
Planting

Planting should be similar in character to the ~~northern edge of this area~~.

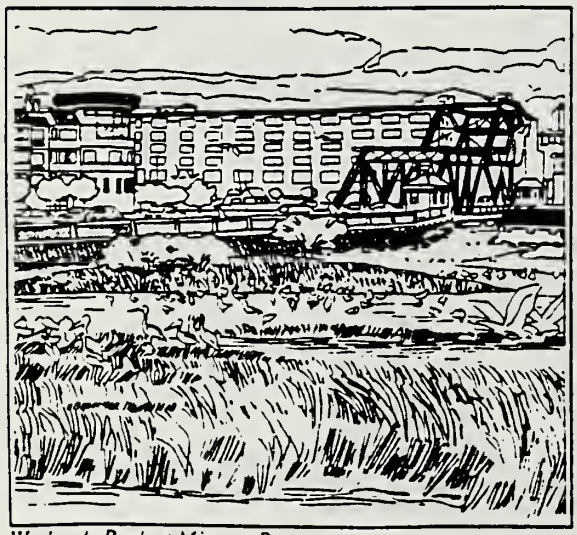


Southern Edge - Owens to Seventh Street

The wetlands park could be expanded by approximately one acre if the current port tenant along the northeastern edge of the park (M&H Ship Services, Inc.) relocates.



Mission Bay Wetlands



Wetlands Park at Mission Bay

3. MISSION BAY WETLANDS PARK

Intent

The general character of this approximately 10.8 acre area at the northeastern corner of the plan area where the Channel meets the Bay should be natural wetlands. It should be treated as a setting for the flora and fauna of a natural shoreline ecosystem. Public access to the wetlands should be in limited areas that are landscaped with plant varieties in natural appearing arrangements.

Character Elements

The Mission Bay Wetlands Park should include marsh vegetation, mudflats, islands, and waterways that form a natural wetlands setting. Public access should be limited to a perimeter pathway system located to allow viewing of wildlife activities and views of the Bay. Park facilities should include educational information about the vegetation and wildlife likely to inhabit the wetlands.

Furniture

Fixed wooden picnic tables and benches and fixed trash receptacles should be placed along the pathways and at the Bay's edge.

Lighting

Lighting should be low level standard lighting along the Third Street edge only, to provide uplighting of tree canopies and mounted within the trees.

Planting

Trees along the Third Street edge should be complementary to trees in other adjacent landscaped areas. Planting in the wetlands itself should include those types of vegetation most conducive to the creation of a viable wetlands. Revegetation should be done in consultation with hydrologists and biologists specializing in wetlands habitats. For the plant palette, see page 3-46.

Note: This page is all new.

3.3 Mission Bay Fields

Intent

South of Mission Point Park will be one of the major recreational precincts of Mission Bay. While it should be also neighborhood serving, the playing field area should be accessible to the citywide community.

Guidelines

Predominant Uses

This space can be designed to incorporate one football/soccer field, two softball diamonds, and up to four tennis courts.

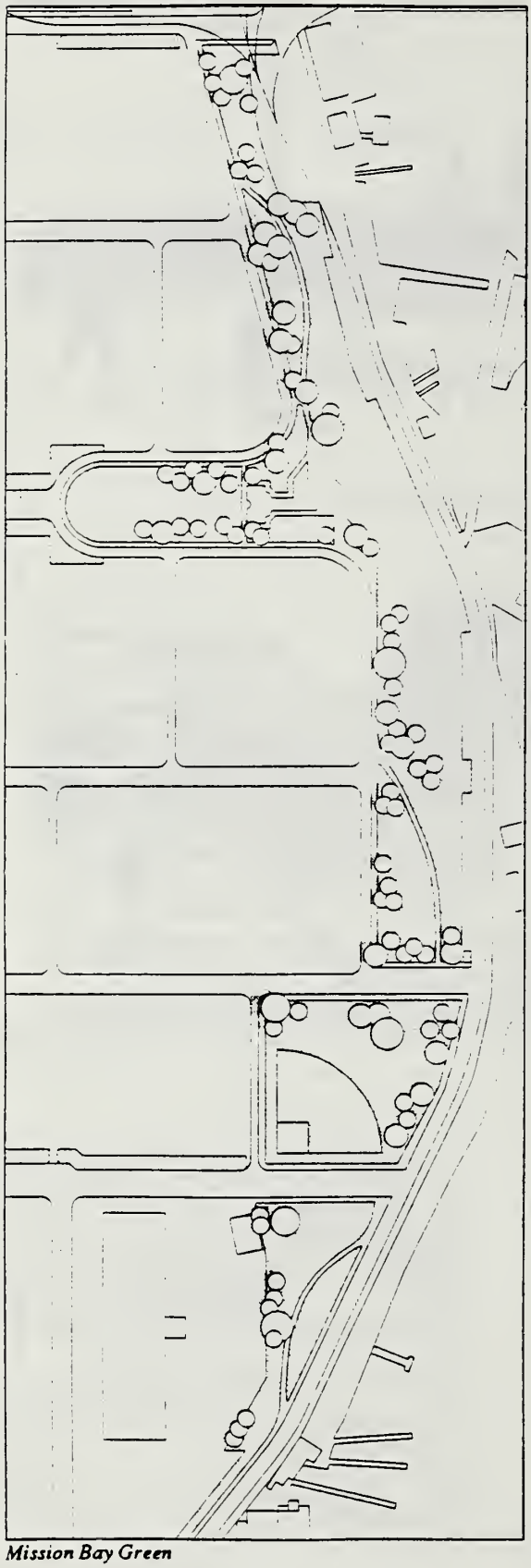
As the space develops southeastward toward the Mission Bay Green, additional uses should include a playground/tot lot and associated sitting areas, within groupings of shade trees. Parking facilities should be nearby and also serve the community facilities complex associated with the existing firehouse area. Public restrooms and associated food concessions should be provided in this area, along with drinking fountain.

In addition to the large turfed area, plantings and lighting should be similar to that for Mission Point Park. Lighting for field events should be provided with fixtures selected which minimize light spillages on adjacent parcels.

Neighborhood Playfields

Neighborhood Playfields at Mission Bay

In addition, there will be parking, staging and turnaround areas for boat trailers and associated vehicles within Mission Bay Green and China Basin Street. The size and locations will be determined when this park and street are desi



Mission Bay Green

4. MISSION BAY GREEN

Intent

The Mission Bay Green should be a large linear open, green space approximately 12 acres in size created between Mission Rock Street and extending south of Sixteenth Street. The open space will be defined on the west by an architectural edge and a street and the east by China Basin Street and the waterfront. At Sixteenth Street, the green will widen to accommodate a softball field.

Guidelines

Predominant Uses

Active recreation (court games, a playground and tot lot) open-field games, jogging, frisbee, kites and passive activities such as strolling, sunning, picnics and recreation. Public restrooms and associated food concessions should be provided in this area, along with a drinking fountain.

Character Elements

Substantial open green, orientation to the Bay, recreational facilities (court games, play equipment, tot lot) toward the ends, and the water feature nearer the center should be the key elements of the Green.

Planting

Street trees should border the western edge of Mission Bay Street. Plantings within the Green should be informal and sparse, predominantly in masses around playgrounds and picnic areas at the northern and southern ends. A mixture of deciduous and evergreen informal tree masses should tie the Mission Bay Green with the Mission ~~Point~~ Park to the north.

Bay wetlands

Plant Palette

Trees:

Cupaniopsis anacardiodes	Carrot Wood
Cupressus macrocarpa	Monterey Cypress
Melaleuca leucadendra	Cajeput Tree
Melaleuca linariifolia	Flaxleaf Paperback
Melaleuca stypheloides	Melaleuca
Eucalyptus (sp.)	Eucalyptus
Myoporum laetum	Myoporum
Camphora officinarium	
Pinus (sp.)	Pine
Schinus (sp.)	Pepper Tree
Agonis flexuosa	Peppermint Tree

Shrubs:

Acacia (sp.)	Acacia
Cotoneaster dammeri	Bearberry Cotoneaster
Escallonia fradesii	Escallonia
Griselinia littoralis	Griselinia
Pittosporum (sp.)	Pittosporum
Prunus laurocerasus	English Laurel
Raphiolepsis (sp.)	Raphiolepsis
Coprosma baueri	Mirror Plant

Ground Cover, Vines and Hanging Plants:

Hedera canariensis	Algerian Ivy
Hedera helix	English Ivy
Grasses (sp.)	
Bougainvillea (sp.)	Bougainvillea

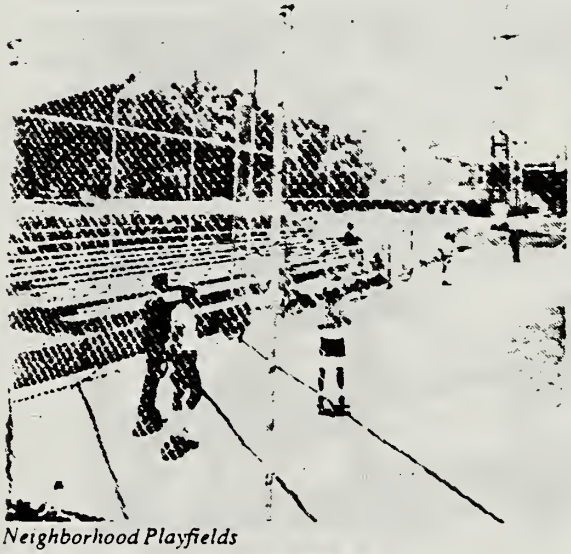
Furniture

This major bayfront open space should be an open green, with furniture confined to benches, picnic tables and game tables associated with the tot lot and quiet activity areas. Trash receptacles should be fixed. Drinking fountains should be associated with restrooms and quiet use areas.

Lighting

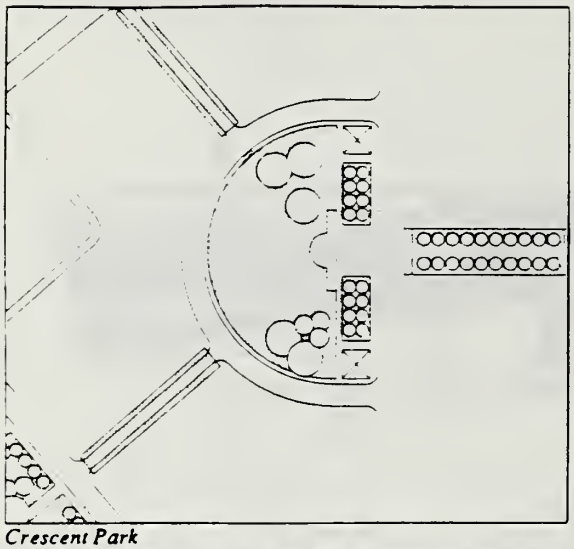
Except for lighting of water features, general lighting of the open space may not be necessary. Edge lighting is desirable along Mission Bay Street. This should be low level standard lighting extending to include the tree mass areas to the north and south. Lighting for field events should be provided with fixtures selected which minimize light spillages on adjacent parcels. Uplighting of tree canopies should be encouraged, particularly in the quiet use areas.

Marina Green



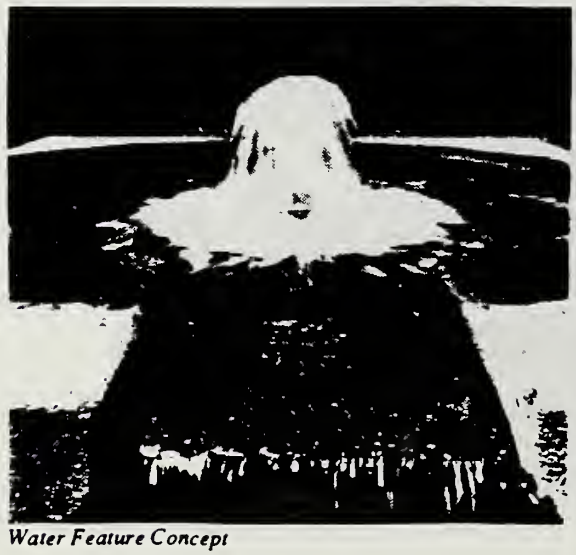
Neighborhood Playfields

Informal Tree Planting



Crescent Park

Crescent Park Concept - Similar to Washington Square



Water Feature Concept

5. CRESCENT PARK

Intent

This should be the signature open space park within the Mission Bay community. Its two and one half acres will be powerful in form, defined by a crescent shaped architectural edge of residential uses. Crescent Park along with Long Bridge Plaza is intended to be the symbolic heart of the community - functionally and geographically.

Guidelines

Predominant Uses

Within the green space, these should include unstructured, open green play space, active play (pick-up sports, frisbee, kites, etc.), picnics, strolling, sitting, jogging, playground, tot lot and a major special element which incorporates water, landscape and seating terraces.

Character Elements

The size of the open green space itself will be dominant. The water feature should be the focal feature.

and/or entertainment

An urban edge, more paved and formally arranged, should be along Long Bridge Street and should be perceived at its edges as an extension of the commercial nature of the street. Food pavilions could be located at both ends to frame the water feature and to maintain partial continuity with the retail use along Long Bridge Street. The western portion of the crescent should be more informal and green. It should relate to the adjacent residential uses.

Water Feature

A fountain is to be installed as the focal feature of Crescent Park and the western terminus of the central east/west open space corridor. The fountain should have a basically formal composition of seating terraces focused on a large pool with a water jet display. The pool itself should be contained by seat/wall which becomes the lower terrace of an amphitheater area surrounding the pool. Steps should be of a variety of heights and sizes to

accommodate everyone. They should rise up to the top ledge which will be backed by a grassed berm from the Crescent Park green.

Planting

Planting should be largely turf throughout with shade tree groupings defining two areas, one on each side of the water feature, which is centered at the eastern edge of the crescent. These groupings should be associated with a tot lot and playground area and shelter quiet sitting areas. They should also extend and enhance the character of the special feature.

Planting Palette

Trees:

Cupaniopsis anacardiodes	Carrot Wood
Camphora officinarium	Camphor Tree
Pyrus kawakami	Evergreen Pear
Melaleuca leucadendra	Cajeput Tree
Melaleuca linariifolia	Flaxleaf Paperback
Eucalyptus (sp.)	Eucalyptus
Maytenus boaria	Mayten Tree
Myoporum laetum	Myoporum
Liquidamdar styraciflua	American Sweet Gum
Pyrus calleryana	Ornamental Pear
Crataegus (sp.)	Hawthorn

Shrubs:

Acacia longifolia	Sydney Golden Wattle
Arbutus unedo	Strawberry Tree
Carissa grandiflora	Natal Plum
Escallonia fradesii	Escallonia
Grevillea noelli	Grevillea
Griselinia littoralis	Griselinia
Pittosporum tobira	Tobira
Prunus laurocerasus	English Laurel
Raphiolepsis (sp.)	Raphiolepsis
Trachelospermum jasminoides	Star Jasmine

Ground Cover, Vines and Hanging Plants:

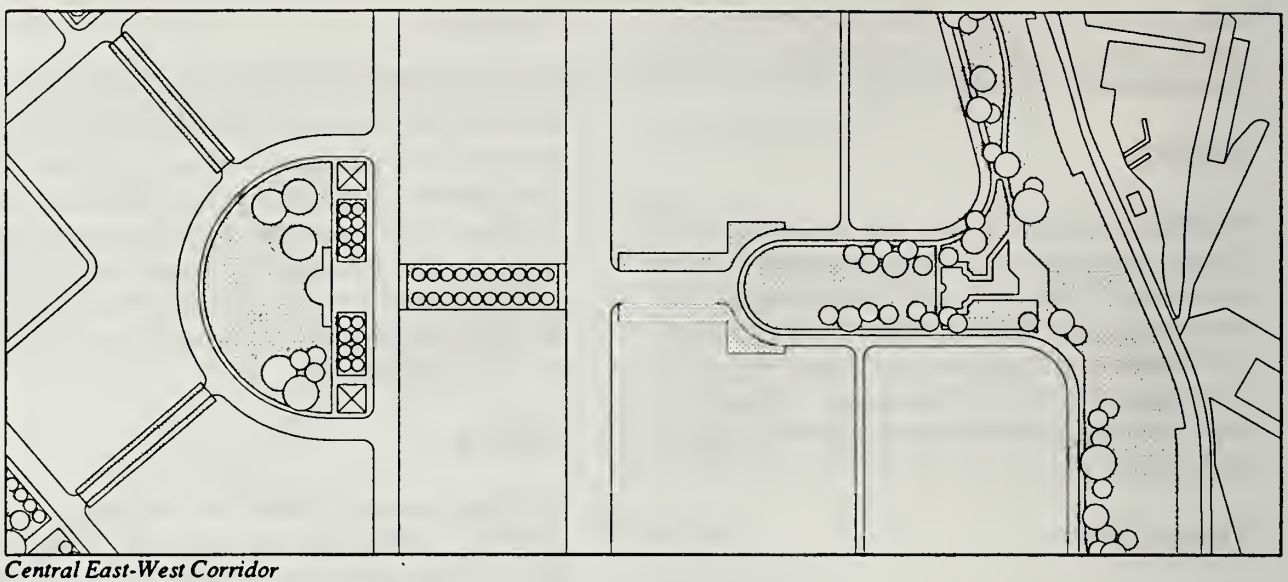
Cotoneaster dammeri	Bearberry Cotoneaster
Rosmarinus officianallis	Rosemary
Bougainvillea (sp.)	Bougainvillea
Clematis (sp.)	Clematis
Hedera canariensis	Algerian Ivy
Hedera helix	English Ivy
Mandevilla suaveolens	Chilean Jasmine
Solandra guttata	Cup-of-Gold-Vine

Furniture

Furniture within Crescent Park should be associated with the tot lot and playground areas and the shade tree groupings. Wood is preferred for seats and tables and may be in combination with concrete, as an extension of the special element. Trash receptacles should be fixed and a stepped drinking fountain may be included at the tot lot site and playground area. Public restroom facilities are to be provided here.

Lighting

Lighting generally should be provided on the periphery, within the streetscape edge. Within the shade tree groupings, the preference is for uplighting of tree canopies from within the trees, to discourage vandalism. General area lighting of the open green is optional and, if considered, must incorporate visors or shields to prevent intrusion into adjacent residences. Lighting of the water feature is to be integrated within the feature itself.



Central East-West Corridor

Long Bridge Plaza Concept - Cannery Courtyard

6. CRESCENT PARK TO MISSION BAY GREEN

Intent

The Central East/West corridor provides an open space penetration from the Bay into the heart of the neighborhood, a visual and pedestrian link between Crescent Park and Mission Bay Green and vehicular circulation for the residences east of Third Street. A strong architectural edge should provide the form of the space which varies in width from 80 feet to 200 feet. The use of the right-of-way between Long Bridge and Third Streets will be limited to pedestrians and will be flanked by stores and the community cultural facilities complex.

The formal fountain at Crescent Park terminates the western end and a major participatory water feature which is to be installed at the junction of Fountain Park and Mission Bay Green should culminate the axis at its eastern end.

The axial character of the space and its placement within the overall plan calls for a formal landscape elements composition centered on the space itself as a landscaped park and on the individual freshwater elements. The open space features should vary with the changing function at the edges, culminating at the water feature at the Bay end. It should serve as a connecting corridor to the bay, a visual landscape feature for the adjacent residences, and an armature for quiet pedestrian uses.

Predominant Uses

Uses should include strolling, sitting, jogging, table games, sunning and viewing the water features.

Character Elements

These should include linear containment of space water features, urban character with planting and passive recreation. Paving should be consistent throughout the corridor and responsive (in material) to water feature containment.

Planting

The planting throughout the east/west corridor should provide continuity from Crescent Park to the Bay. This integrated statement may be achieved through a palette or arrangement of trees or shrubs or, at times, both. Within the continuity, it is also desirable to have change and variety. These differences occur in how the planting and ground level planes respond to the character and uses which surround them. Examples include the use of formal plantings in formal spaces, informal clustering in large open spaces, absence of middle story shrubs in plaza areas for visual porosity, and dense shrub plantings in residential areas for privacy and diversity.

Planting Palette

The planting palette has been selected for appearance, durability in this environment, diversity in character as contrasted to the street plantings, and year-round interest. The trees have great flexibility in how they can be combined and many can be single or multi-trunked, allowing for additional flexibility in responding to formal and informal situations.

Trees:

Cupaniopsis anacardiodes	Carrot Wood
Camphora officinarium	
Pyrus kawakami	Evergreen Pear
Melaleuca leucadendra	Cajeput Tree
Melaleuca linariifolia	Flaxleaf Paperback
Myoporum laetum	Myoporum
Maytenus boaria	Mayten Tree
Eucalyptus (sp.)	Eucalyptus
Liquidamdar styraciflua	American Sweet Gum
Pyrus calleryana	Ornamental Pear
Crataegus (sp.)	Hawthorn

Shrubs:

Acacia longifolia	Sydney Golden Wattle
Arbutus unedo	Strawberry Tree
Carissa grandiflora	Natal Plum
Escallonia fradesii	Escallonia
Grevillea noelli	Grevillea
Griselinia littoralis	Griselinia
Pittosporum tobira	Tobira
Prunus laurocerasus	English Laurel
Raphiolepsis (sp.)	Raphiolepsis
Trachelospermum jasminoides	Star Jasmine

Ground Cover, Vines and Hanging Plants:

Cotoneaster dammeri	Bearberry Cotoneaster
Fragaria nhiloensis	Wild Strawberry
Rosmarinus officianallis	Rosemary
Bougainvillea (sp.)	Bougainvillea
Clematis (sp.)	Clematis
Hedera canariensis	Algerian Ivy
Hedera helix	English Ivy
Mandevilla suaveolens	Chilean Jasmine
Solandra guttata	Cup-of-Gold-Vine

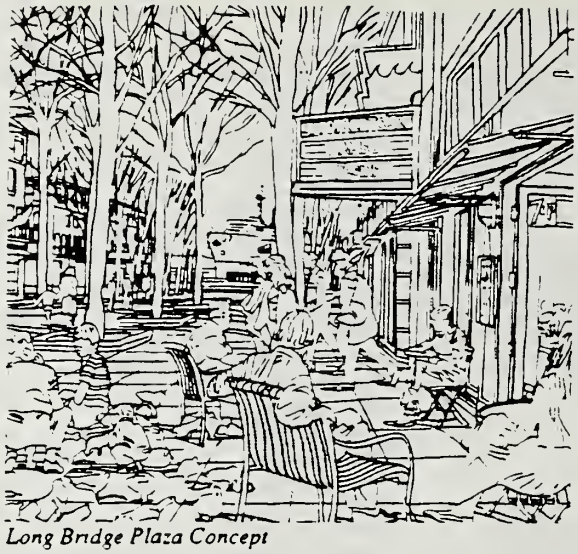
Furniture

Benches, seating and game tables should be fixed and, where applicable, incorporated within planting/water feature edges. Concrete with wood seats is preferred. Trash receptacles should be fixed and of a similar design vocabulary.

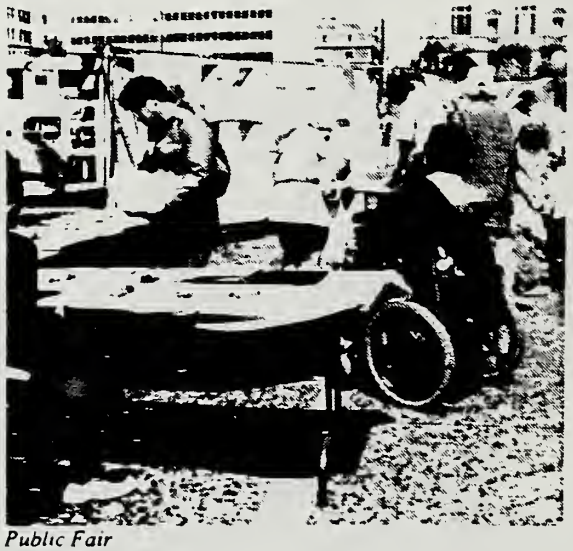
Lighting

Low level standard path and seating area lighting should be provided. Uplighting of tree canopies is encouraged. Lighting of water features should be incorporated within the features themselves.

More specific guidelines for the various segments of this corridor follow.



Long Bridge Plaza Concept



Public Fair

6.1 Long Bridge Plaza

As noted, Long Bridge Plaza together with Crescent Park should be the symbolic center of the community and a place of importance within the overall open space network.

The Plaza which is to be approximately 80 feet wide and 264 feet long, is to be defined by an architectural edge with community cultural complex facilities and eating establishments at the pedestrian level.

Predominant Uses

These should include sitting, strolling, public gatherings, sidewalk cafe space, eating, exhibits, street performers, retail fairs, theater spill-out and a celebration space.

Character Elements

This will be an urban plaza, responsive to architectural edges, formal paving patterns and activities. A linear water element set slightly above grade in a fully contained concrete channel would be desirable and is encouraged but not required. Several edge configurations are possible which allow seating along the water's edge.

Design of the edges should respond to adjacent paving patterns and should be consistent or harmonious for all segments from Crescent Park to Fountain Park.

Planting

The planting design for this space should meet two important objectives. It should maintain and reinforce the continuity between Crescent Park and Mission Bay Green, and it should respond to the plaza space itself. The street trees along Long Bridge Street should not be carried through the plaza. They should stop at the edges to acknowledge the entire plaza space as well as the dominance of the east/west pedestrian corridor.

The planting scheme should be formal in arrangement. It should not attempt to fill the space but leave it open as a space, and should maintain the axial view from Crescent Park to the Bay. There are a variety of ways to achieve this. The space may be accentuated by symmetrically lining the outer edges with a single row of trees. Further strength may be achieved by adding concentric rows of the same species. Trees may also be arranged in formal geometric bosques. Any arrangement should allow people to choose between sun or shade, or to be comfortable alone or in a large group.

The predominant trees should be light in texture and rich in visual interest. Mayten Tree, Cajeput Tree or Carrot Wood would be excellent choices.

Formal Tree Planting

Furniture

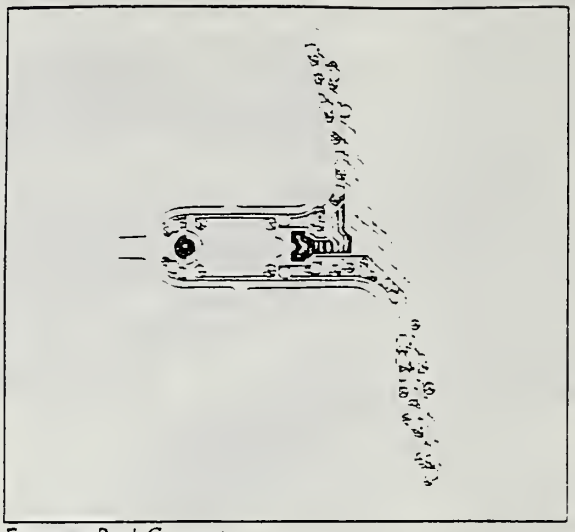
Furniture should be fixed and arranged formally in response to the space. Seating and trash receptacles should be integrated into special site elements (water/landscape features) and be consistent with surrounding materials and paving. Generally, large plaza spaces should be maintained open for movable furniture, exhibits, gatherings, etc.

Lighting

Lighting levels should be congruent with street lighting levels along the retail street with particular focus on any water feature area of the plaza. Uplighting of tree canopies is encouraged and would add considerable dimension to the plaza, particularly during the holiday season.

6.2 Third Street East to Fountain Park

This will be a short space, approximately 100 feet wide by 200 feet long, containing a two-way street flanked by sidewalks and landscaped strips which connects to the one-way loop road which fronts Mission Bay Green and Fountain Park. Its edge landscaping and paving should provide both continuity and a transition between the hard edge urban space to the west and the softer park space to the east.



Fountain Park Concept

Water Feature Concept

Just across the one-way loop road, the east/west corridor should terminate its previous character (to the west) and begins to respond to a new space form, greater width, different uses and a softer, less formal image. The paving pattern and the formal tree arrangement should continue along the sidewalks abutting the residential uses which form the architectural edge and which frame the soft open green of the park.

6.3 Fountain Park

Intent

Fountain Park should be perceived as an extension of the Mission Bay Green. The architectural edge which defines the Fountain Park space will be residential, and uses within the space should be recreational, including a large (over half an acre) open green, a water feature and surrounding plaza space with seating and table games, and informal tree arrangement.

Maximum advantage should be taken of whatever grade change exists (about six feet) and it should be increased if feasible. The downslope from Crescent Park should be slight toward the Bay with maximum differential occurring at the fountain terraces where Fountain Park meets Mission Bay Green. If the Fountain Park elevation is even four feet higher than the service road along the waterfront, this will significantly enhance Bayward views as well as add dynamics to the water feature.

Water Feature

This will be one of the major water features in Mission Bay. The feature is intended to complete the formal definition of Fountain Park and express the transition to the informal broad character of Mission Bay Green. It should be centered on the east/west pedestrian corridor and should make a gesture along that axis.

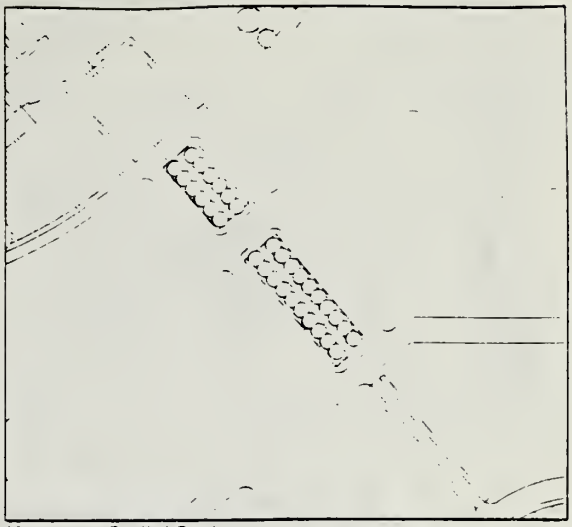
The water feature should consist of a shallow concrete pool with minor cascades situated close to the Green, as a centerpiece to the stepped terrace running along the back (westerly) edge of Mission Bay Green. It should allow substantial green and free play space. The terraces should be low concrete steps (approximately 12 to 18 in height) which act as a sitting, sunning, walking and viewing amphitheatrical edge toward the Green and the Bay. The pool should be designed for playing and wading as well as viewing.

7. CORRIDOR FROM CRESCENT PARK TO CHINA BASIN CHANNEL

7.1 Lane from Crescent Park to Northwest Radial Park

This is a parklike, predominantly pedestrian lane which allows emergency vehicular access only, approximately 40 feet wide with plantings of low shrubs and randomly placed trees. Trees should be a combination of evergreen and deciduous, preferably multi-stemmed varieties.

Benches may be placed in pocket spaces along the way. Lighting should be low level, pedestrian scale standards or building-mounted, of a character consistent throughout the Mission Bay residential precincts.

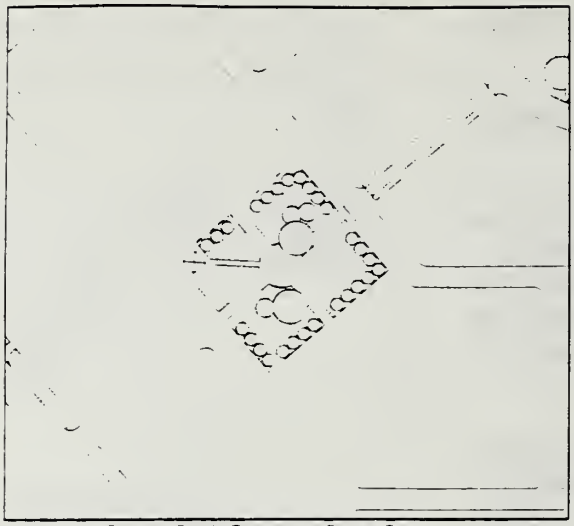


Northwest Radial Park

7.2 Northwest Radial Park

The park is separated from residential uses on the east and west by a one-way loop road. It should be neighborhood space which provides an open space/informal recreation amenity for the adjacent housing as well as a through pedestrian corridor between Crescent Park and South China Basin green. This narrow park should be axial and formal and soft with trees located along the edges and an open view at eye level through the long central axis of the park. Passive recreational uses and sitting areas and associated shrubbery with less formal patterns should be provided throughout the green areas. It should include a tot lot unless one is provided nearby in South Channel Park. Plant materials, lighting and furnishing should be in keeping with the south channel edge palette.

Northwest Radial Park Concept - South Park



Southwest Radial Park Concept - South Park

Southwest Radial Park Concept - Sidney Walton Park

8. CORRIDOR FROM CRESCENT PARK THROUGH SOUTHWEST RADIAL PARK

8.1 Lane from Crescent Park to Southwest Radial Park

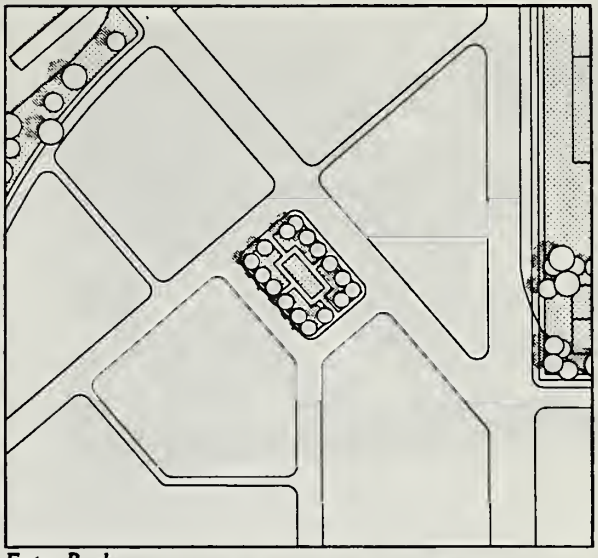
This is a parklike, predominantly pedestrian corridor which allows emergency vehicular access only. About 40 feet wide, its character is the same as the corridor between Crescent Park and Southwest Radial Park.

8.2 Southwest Radial Park

This park should be framed by a formal arrangement of trees at its edges which contain a major green space. The park should be formed in major patterns with informal patterns of trees and shrubs associated with passive recreation activities located throughout the park. It should contain a tot lot. A clear eye-level view along the axis to Crescent Park and its fountain should be maintained. Scale of the trees, paving, furnishings and lighting should be responsive to the low rise residential frontage. Lighting should have low level standards and avoid spillage onto surrounding residential frontage.

There should be public sidewalks on either side of the park to clearly separate the private housing area from the public park area.

9. ENTRY PARK



Entry Park

Intent

Entry Park should be an active, urban social space defined by intersecting neighborhood streets and entertainment retail uses (cafes, restaurants, bars, etc.) within a residential precinct. While it should be urban and formal in character, it should have an intimate scale and serve citywide visitors as well as the neighborhood. Initially, the western edge will be formed by a narrow street which, as the area develops, will be abandoned and redesigned as part of the park.

Guidelines

Predominant Uses

These should include strolling, sitting, eating/drinking. Entry Park should be a festive spot, acting day and night as an anchor at the northern end of the retail corridor.

Character Elements

This should be an activity node and gateway to Long Bridge Street, the major neighborhood commercial street. It should be characterized by a sense of containment and crossroads, intimate scale and apparent activity, paved hardscape formal planting with flexible space for movable furniture. It should employ color, texture and friendly materials. A perceived ability to change to suit a variety of uses is important. A focal element (water or landscape feature) is encouraged.

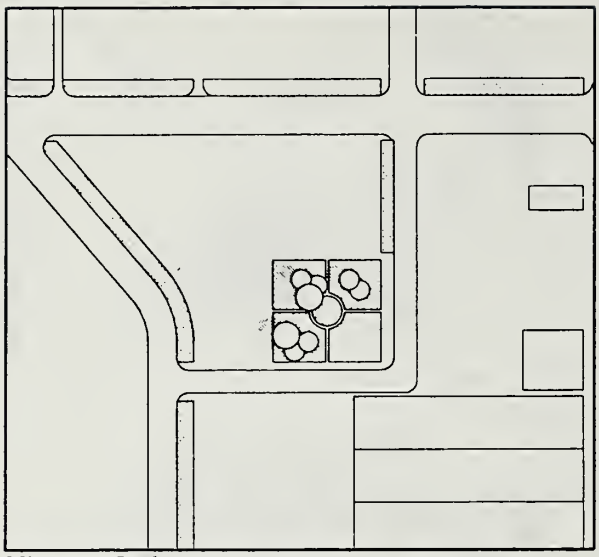
Entry Park Concept - Washington Square with Adjacent Retail

Planting Pallette

Tree planting should be formal within the park and of a variety in contrast to the retail corridor street trees which will continue through the space along the street. Three or four large specimen shade trees would make a strong positive contribution to the park.

Furniture

Seating should be integrated with the landscape/water feature (if one is provided) and fixed benches near the street edges. Generally the



Minnesota Park

Minnesota Park Concept - Sidney Walton Park

space should remain open to accommodate movable cafe furniture. Trash receptacles should be fixed.

Lighting

Low level pedestrian scale standards are preferred. Uplighting of shade tree mass form within trees is encouraged. Water or landscape feature lighting should be integrated within the feature.

10. MINNESOTA PARK

Intent

This park should be the central focal space of this residential area as well as provide an open space terminus to Long Bridge Street.

Guidelines

Predominant Uses

These should include walking, sitting, and sunning. The space will be large enough for informal active recreational uses. It should serve as a visual element around which the housing uses are structured.

Character Elements

Identifying features should include the containment of the open space and perhaps a water feature or other public art. It should include a children's play area and soft green space with informal groupings of shade trees.

Planting Palette

Trees:

Liquidambar stryraciflua	American Sweet Gum
Pyrus calleryana 'Bradford'	Ornamental Pear
Fraxinus pennsylvania (var.)	Green Ash
Quercus (sp.)	Oak
Sequoia sempervirens	Coast Redwood
Melaleuca (sp.)	Melaleuca
Pyrus kawakami	Evergreen Pear
Schinus (sp.)	Pepper Tree
Cupaniopsis anacardiodes	Carrot Wood

Lighting

General lighting should be provided by surrounding street lighting. Additional lighting is optional. Uplighting of shade tree canopies is preferred.

11. ~~MINI~~ MID-BLOCK PARKS

These will be approximately one-tenth acre open spaces accessible to the public with nearby slow moving, one-way vehicular lanes. They should be largely relief open spaces which provide visual greenspace, and tend to restrict through-traffic and should support uses such as an enclosed tot lot/play area or quiet garden areas with seating.

Planting/Furniture/Lighting

To suit the proposed use.

12. PARK PATHWAYS

This recreational strip will be 28 feet wide along the easterly edge of Owens Street, the southerly side of Sixteenth Street, the southernmost block on China Basin and Long Bridge Streets and the easternmost block on Mission Rock Street.

It should be developed as a richly landscaped linear park linking the Channel open space with the Bayfront. It should include a walking/jogging path and occasional bench alcoves for sitting woven within the informal tree patterns. This landscaped band is to be an important component of the overall open space network and completes the neighborhood jogging circuit. At the same time, its green width and strength of planting will reinforce the residential edge of the community. Its seating areas will provide usable open space for the uses across Owens Street.

The strip on Long Bridge Street between Sixteenth Street and Minnesota Park will be 21 feet wide and should be developed as a landscaped link to the Park.

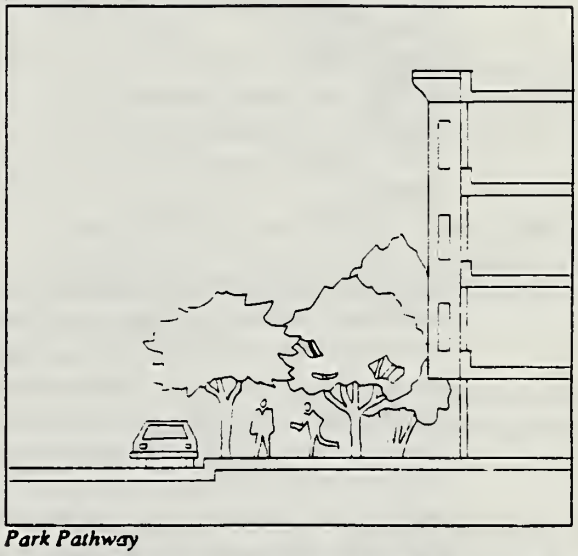
Planting Palette

Eucalyptus (includes):	
Eucalyptus citriodora	Lemon Scented Gum
Eucalyptus ficifolia	Red Flowering Gum
Eucalyptus sideroxylon	Red Ironbark
Pinus (sp.)	Pine
Melaleuca (sp.)	Melaleuca
Liquidambar styraciflua	American Sweet Gum
Gleditsia triacanthos	Honey Locust

Furniture/Lighting

Furniture should include fixed, wood benches at various locations throughout the strip. Lighting should be low-level pedestrian scale standards consistent with lighting of China Basin Channel and Mission Bay Green. Path lighting might include low, ground level fixtures.

~~Mini~~ Park
Mid-Block



Park Pathway

Park Pathway Concept - Golden Gateway Commons

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COMMERCE AND INDUSTRY

Employment opportunities in Mission Bay will be varied and numerous. Commercial and light industrial uses will contribute to the stability of traditional employment and service; research and development uses will offer flexibility for job growth. Nearly 4.8 million square feet of back office space will be built on both sides of King Street north of the Channel. Up to 900,000 square feet of service, office, and/or light industry space will occupy the land next to the I-280/CalTrain/MUNI right-of-way. In small shops and larger stores, about ~~735,000~~ 150,000 square feet of retail will be distributed around Mission Bay. About ~~24,000~~ 33,500 permanent jobs will be available here. private sector

This section describes the office, service, research and development, light industrial, retail and hotel uses in the Plan. The location, building program (square footage), parking and characteristic activities for each use are presented. The manner in which job generation and affirmative employment objectives are fulfilled is also addressed.

Office and Commercial-Light Industrial

OBJECTIVE 19: MAINTAIN AND ENHANCE A SOUND AND ECONOMIC BASE AND FISCAL STRUCTURE FOR MISSION BAY AND CONTRIBUTE TO DIVERSIFYING SAN FRANCISCO'S ECONOMIC BASE.

Policy 1: Provide commercial development in Mission Bay complementary to downtown office and retail development.

Policy 2: Attract new secondary office, service, research and development activities to Mission Bay in order to add to the economic diversity of San Francisco.

Policy 3: Provide primary and secondary office space with floor sizes and other appropriate incentives that will entice employers of entry-level office workers to locate in Mission Bay.

Policy 4: Improve the viability and attractiveness of Mission Bay as a location for new research and development activity and other service and light industry.

Policy 5: Provide land uses that are compatible with adjacent viable commercial and industrial activity.

Policy 6: Maintain an adequate supply of space appropriate to the needs of incubator industries.

Policy 7: Provide opportunities for minority-, women- and locally-owned small businesses.

The balanced Mission Bay development program should contribute to San Francisco's economic base and its fiscal well-being through provision of secondary or back office workplaces. By providing affordable space Mission Bay can help to stem the outflow of back office functions to Bay Area suburbs.

In the six blocks bounded by Townsend, Third, Berry and Sixth Street, Mission Bay will be able to absorb large clerical and data processing workforces, complementary to downtown office uses. On the 25 acres on either side of King Street, 4.8 million square feet of space is to be developed in four-to-eight story office buildings. The King Street office corridor will accommodate approximately 17,000 workers who will be able to travel there by citywide or regional transit systems, by car or on foot. Ground floor retail, restaurants and services along sidewalks will be used by the daytime employees and nearby residents in the evening. Parking will be provided both below and above grade.

The business climate in Mission Bay will be further enhanced by the opportunities created for new, growing industries. The provision of appropriately located space for new research and development and service industries, including incubator industries, will broaden job and business opportunities for the future. It will also help the City to respond to the needs of newly emerging technologies.

Up to 900,000 square feet of service, office, research and development, large scale retail and institutional and/or light industrial space can be developed on about eight acres between Owens Street and the I-280/CalTrain/MUNI Metro corridor. Here, four to six story buildings will be designed with below-grade parking and/or above-grade parking structures.

They will occupy flexible workspace which may have greater than average floor to ceiling height or larger than average floor plans. These spaces could be used by a few large companies or numerous small ones, even if these companies have unusual space requirements. New small businesses who must rely on sharing common space and services may be able to get their start here.

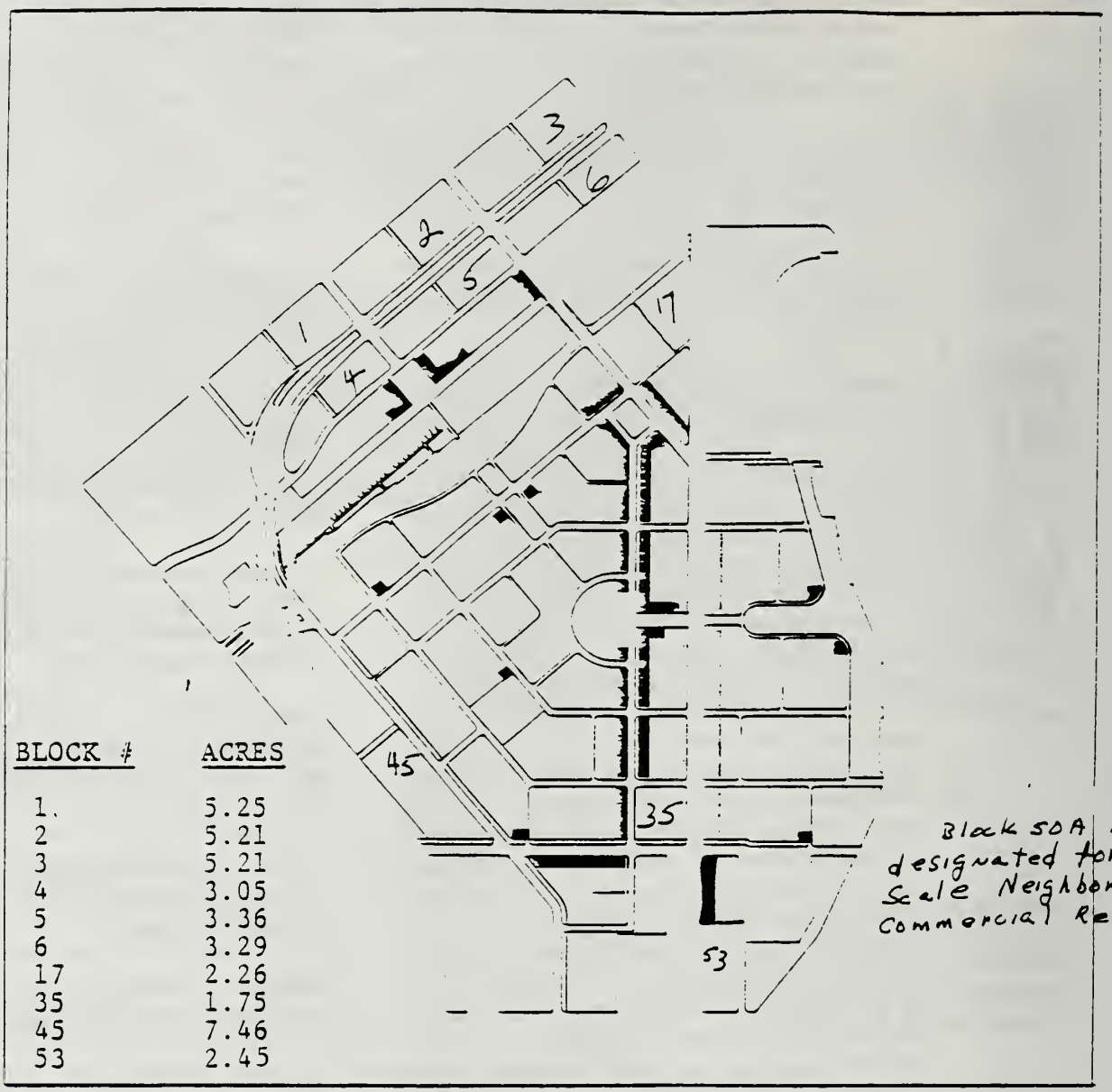
The business uses will be located on the perimeter of the housing where they can act as the intervening use between the I-280/CalTrain/MUNI Metro corridor and nearby homes.

OBJECTIVE 20: AVOID OR MITIGATE HARDSHIPS IMPOSED BY DISPLACEMENT OF EXISTING BUSINESSES AS APPROPRIATE.

Policy 1: Phase development to allow retention of existing businesses, consistent with other phasing principles.

Policy 2: Provide appropriate assistance from the City for businesses facing displacement.

There are currently about 115 businesses in the plan area primarily engaged in warehousing, distribution and related transportation activities. Most of these businesses will be displaced by the new land uses. Most have short-term leases (five-ten years, or month-to-month) while some have leases into the next century (up to the year 2023). The development sequence will take into account businesses with longer term leases to allow them time to phase out. For businesses with limited location options and specific site criteria, help will be provided in finding other potentially suitable sites or buildings, as described in the Mission Bay Business Relocation Assistance Plan (See Chapter 4).



BLOCK #	ACRES
1	5.25
2	5.21
3	5.21
4	3.05
5	3.36
6	3.29
17	2.26
35	1.75
45	7.46
53	2.45

Figure 14: Commerce and Industry Plan

Office

Commercial-Light Industrial

Small Scale Neighborhood Commercial Retail

Moderate Scale Neighborhood Commercial Retail and Service

Community Facilities/Retail

Large Scale Retail/Supermarket

Office/Residential Support Retail

Incidental Neighborhood Support Retail (Illustrative only)

Hotel

Retail

OBJECTIVE 21: CREATE VIABLE NEIGHBORHOOD COMMERCIAL DISTRICTS IN RESIDENTIAL AREAS.

Policy 1: Provide multiple-use neighborhood commercial areas with small-scale neighborhood-serving retail and service activities convenient to residents during their regular activities.

Policy 2: Encourage opportunities for neighborhood-based economic development.

Policy 3: Develop neighborhood commercial areas which have a character similar to other San Francisco neighborhood shopping streets, which integrate physically and visually with the surrounding areas and which are pedestrian-oriented.

Policy 4: Provide larger scale retail areas with opportunities for a supermarket and provision of discount goods and services for Mission Bay and surrounding neighborhoods.

Retail demand in the Mission Bay will be generated by plan area residents and workers and from the larger market citywide. About 750,000 ~~735,000~~ square feet of varying types of retail may be provided in locations shown on Figure 14. Small-scale neighborhood-serving retail will line both sides of Long Bridge Street. Similarly, larger retail outlets and services occupy ground and second floor sites the length of Third Street. Also on Third Street are the sites for large freestanding stores, probably a supermarket and a discount store with structured and surface parking. In addition, certain ground floor corners of residential buildings in the neighborhood will be available for convenience retail (Mom 'n Pop groceries, etc.) and the ground floor of office buildings may cater to the retail needs of residents and workers. Retail shops will also be allowed at MUNI Metro and CalTrain stops for the convenience of transit travellers. Table 3-4 below sets forth the program for retail space in Mission Bay.

Additional retail space is also encouraged at ground level in office areas.

Long Bridge Street is the retail street serving the heart of this neighborhood. It will offer major shopping opportunities and act as a social gathering place. It will be similar to other neighborhood commercial streets with a variety of small-scale stores, along twelve foot wide, tree-lined sidewalks. Long Bridge Street will present business opportunities for 150 to 200 small shops.

Along Third Street, retail uses are sized to take advantage of Third Street's role as a citywide thoroughfare. Easily accessible by vehicles which can be parked on-street or in structured parking, these larger stores will serve Mission Bay, Potrero Hill, South of Market, South Beach, Lower Potrero Hill and South Bayshore neighborhoods. Commercial uses are also allowed on the second floor of the residential buildings lining Third Street where space can be built for dentists, accountants and other similar services.

Support retail for the daytime workforce and residents will occur at the base of office buildings north of the Channel or on Owens Street. Some retail may be located in mid-block lanes which will serve as pedestrian corridors within the large blocks abutting King Boulevard. Restaurants, cafes and drinking establishments will be located to take advantage of the Channel frontage in residential buildings at the water's edge, or park frontage along the area's open space system.

At Third and Sixteenth Streets will be a large-scale retail store (40,000 square feet), such as a supermarket, to serve Mission Bay and its neighbors. Another large-scale store (60,000 square feet) or light industrial use will be located at Third and Mariposa Streets.

Table 3-4
Retail Program

	Type of Retail	Location	Zoning	Approximate ~~Estimated~~ Amount (Gross Square Feet)
(1)	Small Scale Neighborhood Commercial Retail	Long Bridge & 16th Streets	MB-NC-2	250,700 ~~240,700~~ SF
(2)	Moderate Scale Neighborhood Commercial Retail and Service	3rd Street & E. of 3rd Street	MB-NC-3	327,500 ~~335,200~~ SF
(3)	Large Scale Retail/ Supermarket & Parking	3rd & Mariposa & 3rd/16th Streets	MB-NC-S	100,000 SF
(4)	Office/Residential Support Retail	North of China Basin Channel	~~MB-O,~~ MB-NC-3	~~47,100~~ SF
(5)	Small-Scale Convenience ~~Incidental Neighborhood Support~~ Retail	North of 16th, east of Owens Street and other locations	~~MB-NC-1~~ MB-R-1 MB-R-2 MB-R-3	24,400 ~~12,000~~ SF
Total Retail				750,000 SF ~~735,000~~ SF

Note: ~~This table outlines estimated~~ approximate square footage for retail. These totals may vary as market conditions, design constraints and neighborhood needs vary and locations somewhat

OBJECTIVE 22: CREATE A VARIETY OF RETAIL AND OTHER VISITOR-SERVING USES THAT BENEFIT BOTH RESIDENTS AND VISITORS.

Policy 1: Provide retail, hotel and cultural facilities for local and citywide use.

On China Basin Channel, a 500-room hotel will be constructed. It will offer its guests--including friends, family or colleagues of Mission Bay residents or workers--temporary lodging near workplaces and residences. In the most benign climatic zone of San Francisco, it also will have unique views of China Basin Channel where it feeds into San Francisco Bay and views of the Bay Bridge. In addition to the ~~300~~ 400 or so jobs it generates, it will bring additional retail business and dining opportunities to the China Basin Channel.

Maritime

OBJECTIVE 23: ENHANCE SAN FRANCISCO'S MARITIME POTENTIAL.

Policy 1: Use the existing Port jurisdiction east of Third Street to achieve land transfers compatible with the present Port and regional plans for Port expansion adjacent to its container terminals in the Pier 80-96 area.

Policy 2: Avoid actions which may serve to displace desired existing maritime uses at Piers 48, 50 and 54.

Policy 3: Develop an open space buffer for noise and visual buffering between maritime activity and abutting housing development to reduce land use conflicts.

Although large areas of existing Port land within the plan area will be redeveloped as housing and open space, provisions have been made through a land exchange to ensure the long-term viability of San Francisco maritime operations. Port of San Francisco land east of Third Street planned for housing and community facilities will be part of a land transfer enabling the Port to acquire property for expanded container terminal operations near Piers 80-96. The Port will obtain from the Project Sponsor an additional 35 acres including City streets by Pier 80 to augment its holdings there. Other portions of existing Port land will be leased or otherwise conveyed from the Port to the Project Sponsor and used as open space. Port activities on the adjacent Piers 48, 50 and 54 will be able to continue. ~~Six~~ About 7.7 acres next to Piers 48 and 50 will be retained for trucks, cargo, parking and other related uses as Piers 48, 50, and 54 will remain under Port control and in maritime use for the foreseeable future. These Port operations will be served by existing rail lines and truck routes.

Housing will be buffered from Port activities by the Mission Bay Green, Mission ~~Point Park~~ Bay Wetlands and the recreation center and public safety complex, which will provide visual screens and added distance between these two potentially conflicting land uses.

Employment Opportunities

OBJECTIVE 24: EXPAND EMPLOYMENT OPPORTUNITIES IN MISSION BAY FOR SAN FRANCISCO RESIDENTS.

Policy 1: Promote efforts to attract, retain and expand employment improvement opportunities for unskilled and semi-skilled workers.

Policy 2: Provide job training programs to impart skills relevant to Mission Bay.

Policy 3: Provide opportunities for newly emerging economic activities.

Policy 4: Promote the establishment of a cooperative affirmative action network for resident access to permanent and construction jobs in Mission Bay and include opportunities for minority, women and other local resident employment.

There was employment for about 2,000 people in Mission Bay as of 1985. By the year 2020 there will be about ~~24,000~~ 25,000 employed persons here. The acreage devoted to job-generating land uses will be fairly intensely developed, with new jobs created in offices north of the Channel and in commercial-light industrial and hotel uses south of the Channel. Construction employment generated by the development of Mission Bay will offer a wide range of job opportunities for thousands of people in various skill levels for 20-30 years. This economic growth will provide opportunities for advancement and for employment of those who are unemployed.

Mission Bay represents a unique opportunity to expand and diversify San Francisco's employment base. The strengths of Mission Bay's location and the competitive market niches it could realistically serve would:

- Draw new jobs to the City by providing mixed commercial opportunities in San Francisco;
- Provide an alternative competitive back-office location for firms considering relocation out of the City;
- Allow San Francisco firms to consolidate inefficient uses of space and thereby open possibilities in other areas of the City;
- Absorb a share of the growth in new enterprises; and
- Expand the diversity of employment opportunities available within the City.

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Commerce and Industry Design Guidelines

1. GENERAL INTENT

It is anticipated that the office district will be developed as an office area with large floor plate back office users while the buildings in the commercial-light industrial district are expected to house firms which are doing applied research and/or developing new products or technologies, or that provide business services or manufacture, warehouse or distribute products.

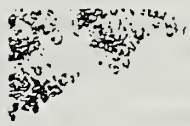
The intent of these design guidelines is to foster development which (1) produces building types to attract uses which will help diversify the City's economy; (2) creates buildings which relate contextually to the better designed buildings of a similar bulk and height in the South of Market area; (3) defines streetscape in the traditional manner of San Francisco commercial and industrial buildings; (4) creates pleasant and usable public open spaces with urban character; (5) produces an urban fabric which breaks up large blocks and links separate developments with a system of public passageways and plazas; and (6) maximizes views and solar access for building users and pedestrians.

Urban streetscapes are different from their suburban counterparts primarily in their setbacks. San Francisco follows the typical urban model by encouraging minimal, or no front or side setbacks. Also typical of the urban streetscape is the parallel orientation of buildings, frequent openings to the sidewalk, which is nearly always located within the street right-of-way, and a more monumental entrance of more than one story.

Desirable urban texture resulting from a network of mid-block passageways and courtyards can be seen in the Commercial-Leidesdorff Street area in the Financial District and in Jackson Square. Mid-block alleys and pedestrian passageways subdivide the blocks, and in some cases are adjacent to these passageways.

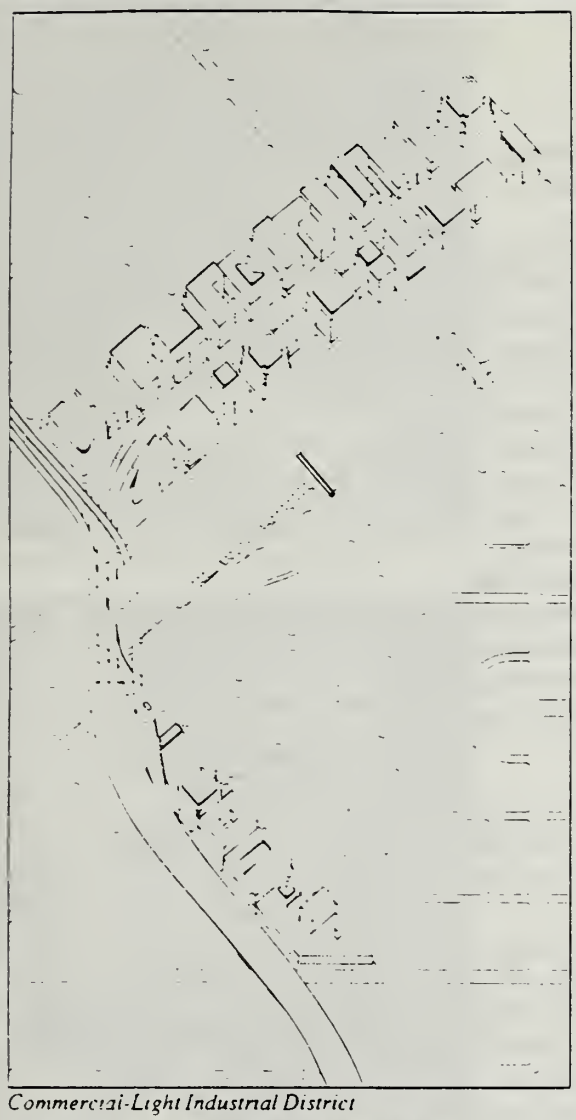
The traditional San Francisco office streetscape can be seen throughout the City. Its character is

Levi Plaza



Commercial Streetscape

Courtyard



Commercial-Light Industrial District

Public Art

determined by building walls which are parallel to the street, at the edge of the sidewalk. Entries puncture the buildings walls on major street frontages and are announced with recesses from the sidewalk, elegant materials and other special features. Ground level uses are open to the street, either as retail, service commercial spaces or offices with ample glazing, so that the lively activity of the street is maximized at the ground level of the buildings. Parking structures and extended blank building walls rarely appear on the street. It is intended that office buildings in Mission Bay work within this urban context and replicate these urban characteristics.

Buildings in the commercial-light industrial district are expected to be relatively low cost buildings. Lease space characteristics of service/light industrial/research and development buildings include large, tall, flexible spaces which can be subdivided to suit one or many tenants. These buildings may require multiple large roll-up type doors which allows the moving of machinery required for development and new products/technologies or the light manufacture of goods. Typical construction methods for buildings under four stories would likely include tilt-up. Nevertheless, well-designed buildings with articulated bases, a hierarchy of opening sizes, and strong formal organizations of elements, should reasonably be expected.

It is intended that buildings in the commercial-light industrial district be designed to provide an attractive face to the community relegating service and loading activities to the rear or sides of the buildings where they can be more easily screened from casual view. Facades, when possible, should have large glass to wall ratios so as to be inviting from the street.

1.1 Public Art

Works of art costing an amount equal to one percent of the construction cost of buildings in the office district are to be installed and maintained on the site of each building in a location clearly visible from the public sidewalk or on the site of a required open space or on adjacent public property. The Fine Art Guidelines adopted by the City Planning Commission, July 24, 1986, for the downtown area apply to the Mission Bay office district art requirement.

2. GUIDELINES

2.1 Permitted Density

The amount of development and parking permitted on each block is shown on Figure 8.

The total permitted office development on the six blocks in this district is 4.8 million square feet (or an FAR of 4.5:1) and the total number of parking spaces permitted is 4,800 with a maximum of ~~2,600~~ spaces permitted at grade or above. The permitted building volume including the volume of above-grade parking should be fairly evenly distributed throughout the district in order to meet the guidelines (below) regarding height variation, continuity of the street wall and lot coverage. ~~If the distribution of permitted office space were based strictly on the size area of each block available for development (after deducting the required mid-block passageway), the maximum amount of office space in each block, in square feet, would be as follows:~~

(blocks 1 through 6 as shown in Figure 14.)

2,640

~~Block 1~~	~~818,000~~	~~Block 4~~	~~486,000~~
~~Block 2~~	~~876,000~~	~~Block 5~~	~~731,000~~
~~Block 3~~	~~1,168,000~~	~~Block 6~~	~~721,000~~

~~However,~~ In order to provide flexibility in meeting the needs of specific space users and to enable more efficient organization of the above-grade parking (see Parking guidelines), square footage may be transferred from one block to another if: (i) the other guidelines (height variety, continuity of street wall and lot coverage) can and will still be met on each block, and (ii) the total amount of office space in the district does not exceed 4.8 million square feet.

The total permitted development in the commercial-light industrial district is 900,000 square feet (or an FAR of ~~3.5:1~~) and the maximum number of parking spaces permitted is 900. The volume of the permitted commercial-light industrial space and above-grade parking should be fairly evenly distributed throughout the district in order to meet the guidelines below regarding height, continuity of street wall and lot coverage.

(Block 45 as shown on Figure 14

3.0:1

Mid-Block Passageway Concept - 5 Fremont Center

Mid-Block Passageway Concept - Rincon Center

Mid-Block Passageway at Mission Bay

2.2 Lot Coverage

Substantial buildout of the development parcel lot for the first four floors is encouraged to establish strong building lines along the street and to reduce the amount of development which occurs above 55 feet, or, in the case of the area west of Owens Street, above the level of the freeway. Exterior building walls should align with the street grids and hold the sidewalk edge at ground level. However, throughout the office area there should be some at-grade open area to create entry recesses, courtyards and pedestrian passages in order to break down the bulk of the building facade and create a pedestrian network.

Courtyards and entry recesses should be located so as not to erode the sense of continuity of the street wall. Where the width of a setback exceeds approximately 30 feet, the street frontage should be maintained by landscape or architectural elements. Setbacks should not occur on corners.

West of Owens Street, major building entries (including landscaped plazas if appropriate) should occur at the termination of Sixteenth and Channel Streets if that can reasonably be accomplished given the character of the building and the needs of the user.

2.3 Mid-Block Passageways

To divide each of the large office blocks into more appropriate sizes for ease of circulation there should be mid-block passageways running north and south approximately in the middle of the block.

In the commercial-light industrial area west of Owens Street, there should be a mid-block passageway running east and west somewhere within the middle third of the block to provide access to the transit facilities.

The minimum width of passageways should be:

- 20 feet if the passageway is for the exclusive use of pedestrians.
- 25 feet if the volume of traffic is not anticipated to be great enough to require

segregation of pedestrians and vehicles (e.g. no access to parking is provided from the passageway).

- 30 feet if segregation of pedestrians and vehicles is necessary.

Minor encroachments into the passageway, such as seating, flower stands, magazine racks, etc., which will animate the passageway, are encouraged.

If necessary to provide interconnections between structures occupied by the same user, structures on either side of a mid-block passageway may be connected by a single, one-level overhead bridge. The bridge may be open or enclosed, should be no wider than 15 feet, and should allow a clearance of at least 36 feet. The bridge should be located approximately midway along the passageway and should be designed to minimize its visibility and to minimize the shadows it casts on public open spaces.

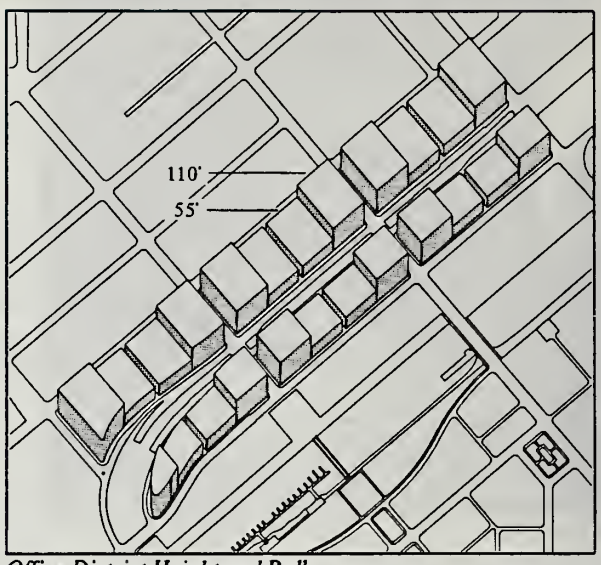
2.4 Height and Bulk

Office District

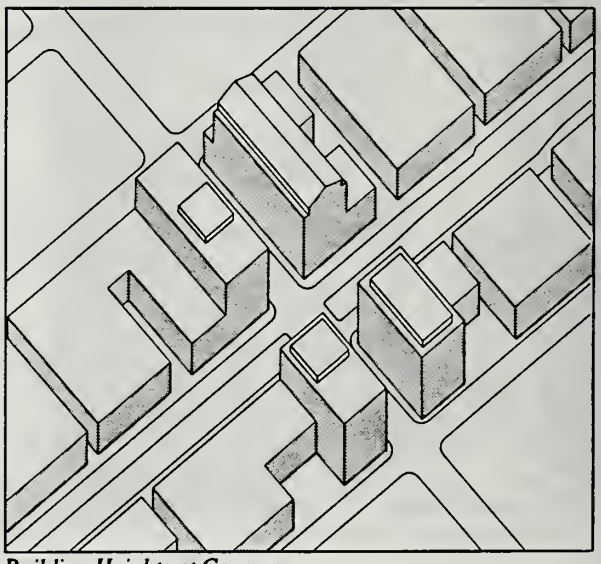
The maximum allowable height in the office district is eight floors, not to exceed 110 feet. The permitted square footage of development and the permitted above-grade parking should be massed in such a manner that there is variation in the height of the various building elements between 55 and 110 feet. Parking structures should not exceed 55 feet in height.

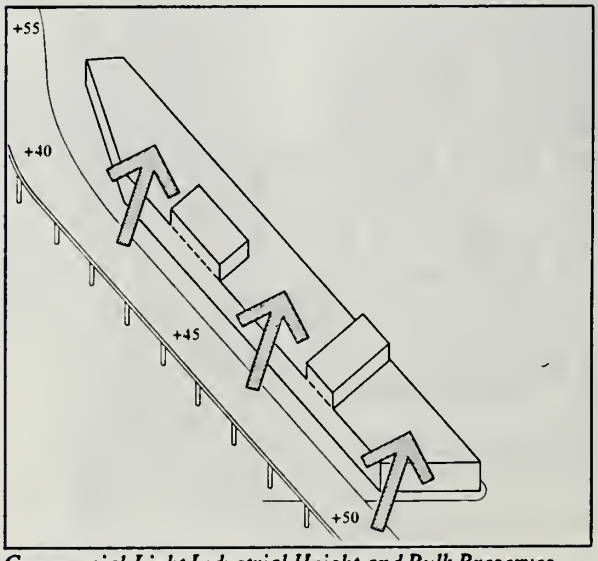
The heights of structures should provide a gradual transition from the existing buildings on the northwest side of Townsend Street, which are typically 55 feet or less with a few buildings above that height. Therefore, relatively more of the frontage on Townsend Street should not exceed 55 feet than on other streets in the district.

To help define the intersections, taller building elements are preferably located on street corners except along Townsend Street, where four story elements are preferred on corners to better relate to the scale of existing development.



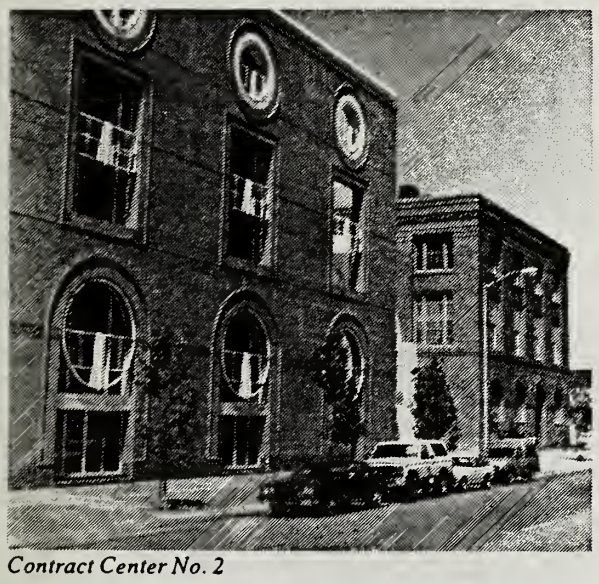
Office District Height and Bulk


Building Heights at Corners



Commercial-Light Industrial Height and Bulk Preserves Views

1 Harrison Street



Contract Center No. 2

Hills Brothers Plaza

Given the intent to permit buildings with large floor plates to serve back office users, fixed bulk limits have not been set. However, varied building heights and massing are necessary above 55 feet to reduce the appearance of bulk, provide variety in the silhouette of the buildings on the skyline and maximize light and air to the lower floors and open spaces. Consistent with the foregoing design guidelines, no more than 40% of the office square footage should be above 55 feet.

Commercial-Light Industrial District

The maximum allowable height in the commercial-light industrial district is six floors, not to exceed 85 feet. There is no specific bulk limit. However, the amount of development permitted in this area should be sited and massed in such a manner that the portions of structures above the elevated freeway structure do not form a wide wall but rather provide ample openings for views beyond the buildings from the freeway.

The height of the elevated structure abutting this district is generally indicated in the drawing on page 3-75. The actual height of the structure adjacent to a proposed project should be determined and referred to in designing a building to minimize view blockage.

2.5 Design Character of Buildings

Existing buildings of the City are references for new ones. To the extent that height, scale and texture of new buildings can respond to what currently exists, the urban design of the City will be integrated over time and Mission Bay will fit comfortably in its surroundings.

Therefore, new buildings should respect the architectural context of adjacent areas. Low-rise masonry buildings with large window expanses are common. Defined bases and cornice lines, a hierarchy of window opening sizes, and punched window and door openings in thick, solid walls are characteristic of many nearby buildings.

Buildings in the adjacent South of Market area that may be considered as context include:

1035 Howard Street
835 Howard Street
698 Second Street
625-Third Street
700-Seventh Street
355 Fremont Street
101 Harrison Street
657 Howard Street
350 Townsend Street

The buildings identified are not intended to be used as models to be mimicked, but rather as resources from which operative design principles may be derived. The intent is not to encourage duplication of older buildings but to ensure that new structures, however contemporary, fit comfortably in the neighboring city fabric.

Newly constructed or remodeled buildings that have successfully related to their context include:

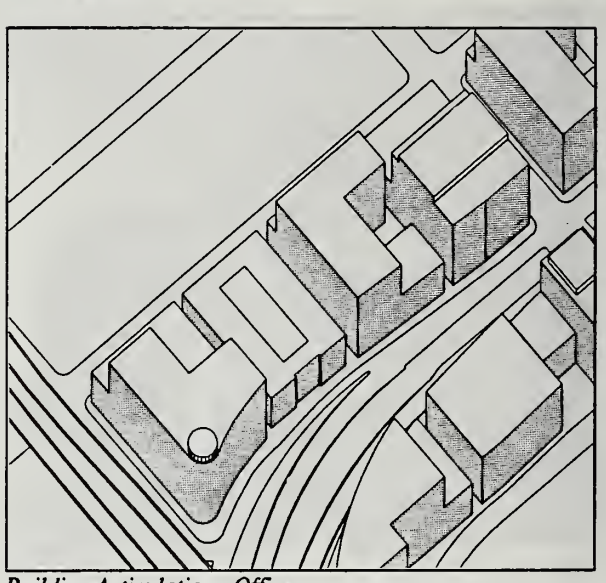
1 Harrison Street
Hills Brothers Plaza, including 2 Harrison Street
Contract Center No. 2, including 650-Seventh Street
120 Howard Street
600 Townsend Street

Building Base

2.6 Base of Buildings

The bases of buildings should be articulated as a distinct part of the building facades. The lower two floors should be designed with color, texture and other visual interest at the pedestrian scale. Awnings, canopies, rich and articulated materials, signs and decorative entrances are encouraged.

Building walls at street level should be open in character. Clear, untinted glass should be used to allow maximum visual interaction between sidewalk areas and the interior of buildings. Where substantial length of windowless wall is unavoidable, eye level display, a contrast in wall treatment, offset wall line, outdoor seating and/or landscaping should be used to enhance visual interest and pedestrian area vitality.

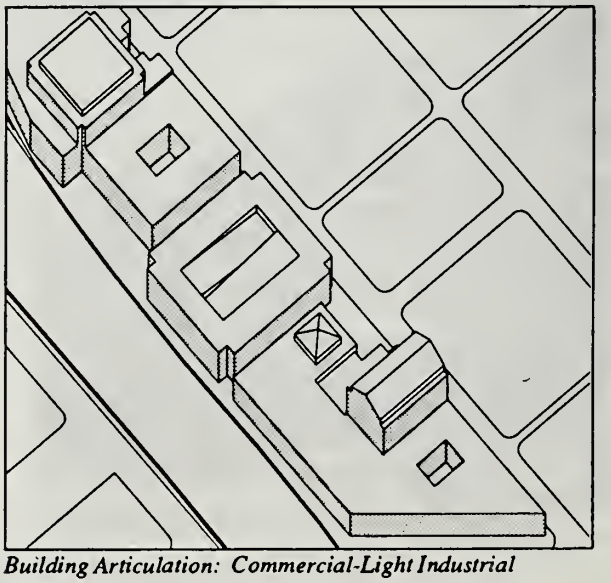


Building Articulation: Office

2.7 Building Articulation

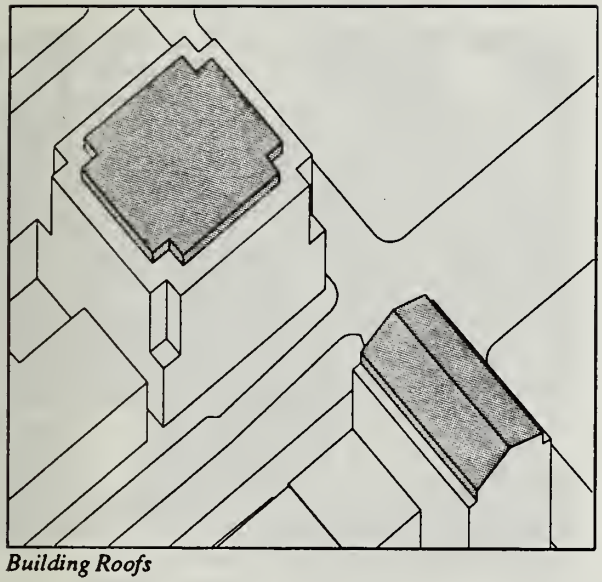
To add visual interest and to break down the appearance of bulk, buildings should be articulated by changes in the vertical plane of the building at various heights, by creation of courtyards, passageways and entry recesses and through other scaling devices such as:

- changes in cornice height
- changes in roof forms
- use of Bay windows



Building Articulation: Commercial-Light Industrial

Building Signage



Building Roofs

- changes in color and/or building material
- changes in height at corners, entries, etc.
- change of roof treatment at entry bays.

2.8 Building Materials

Wall systems that have a flimsy appearance are inappropriate. Buildings should have substance and durability in appearance. Materials such as brick, stone or tile have a history of use in the South of Market. Their use is encouraged in seismically sound buildings.

Facades of good quality, architectural grade concrete broken up by the use of reveals and/or moldings could also be appropriate.

Extensive areas of glass curtain wall should be avoided. Mirrored or reflective glass or densely-tinted glass should not be used except, possibly and sparingly, as a decorative element.

2.9 Signage

Signs on building facades should be limited to the first two stories and should conform to the standards for moderate density neighborhood commercial districts. Building identification signage should be integrated with the design of building entrances.

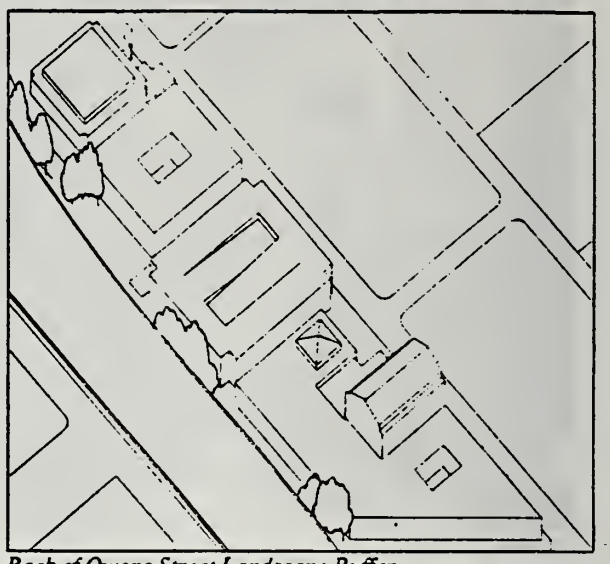
Billboards are not allowed.

2.10 Roofs of Buildings

Mission Bay will be overlooked by Potrero Hill residents and by Mission Bay residents in nearby mid-rise structures. Rooftops should be designed in an orderly manner using non-reflective, low intensity colors. Mechanical equipment should be enclosed and incorporated into visually interesting building tops.

2.11 Design of the Backs of West-of-Owens Street Buildings

The rear of the buildings along Owens Street will face onto the CalTrain and MUNI Metro tracks and will be the principal view of Mission Bay for many transit passengers. Because of this, greater attention should be given to the building design and landscaping at the rear of the buildings than would ordinarily be the case.



Back of Owens Street Landscape Buffer

2.12 Retail Uses in Office Areas

In the office district, retail sales and services are appropriate uses at the street level of buildings and can be located at corners, at mid-block passageways where they occur and particularly at the base of parking structures.

Ground Floor Retail Concept - One Market Plaza

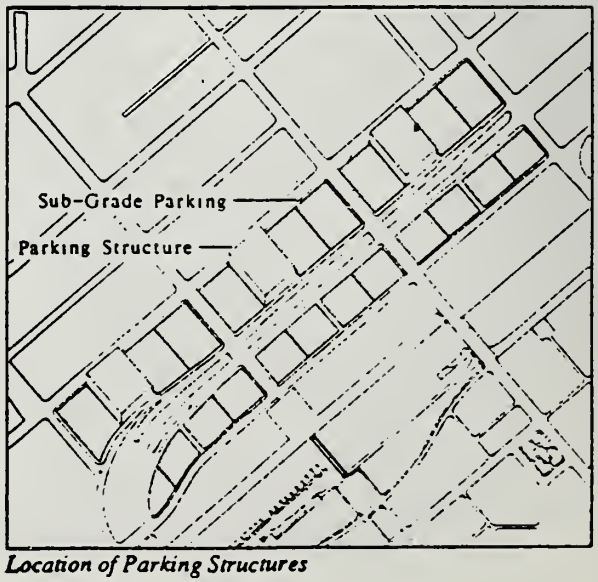
2.13 Parking

Amount of Parking

The amount of permitted parking is one parking space for each 1000 square feet of office and commercial-light industrial development. Permitted parking may be located underground, in surface lots, above grade in office or commercial-light industrial buildings, or in above grade parking structures.

In the office district, of the permitted 4,800 spaces, no more than ~~2,600~~ 2,640 parking spaces may be provided above grade. This excludes parking which is a half-level or more below grade. The spaces permitted above grade could be provided in three structures in a three bay layout. The structures should be located on the north side of King Street, where the blocks average 225 feet deep rather than on the south side where the maximum depth is 175 feet deep, so that the amount of parking structure exposed to the street is reduced.

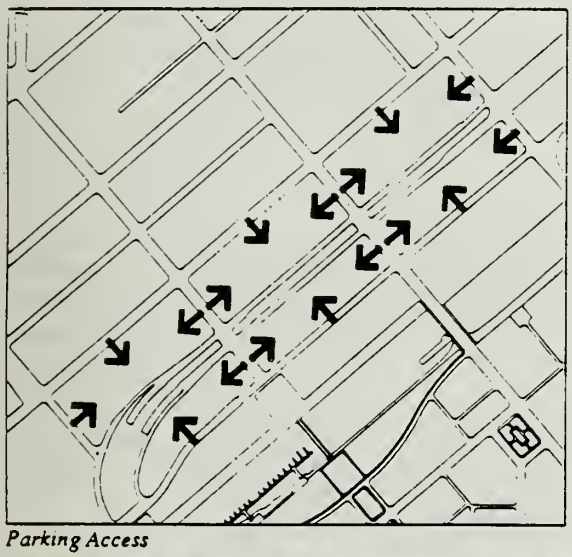
Parking structures should not occupy street corners and should be sited so that the amount of frontage on streets and passageways is minimized.



Location of Parking Structures

Parking which is wholly or partially above grade, whether in buildings or parking structures, should be screened along streets and mid-block lanes by at-grade retail, office, or institutional uses. Where there is insufficient market demand to support such uses, the parking to a height a full floor above grade, should be screened by a nearly solid wall with visually interesting patterns and changes in planes

Parking Entrance Concept - Five Fremont



Parking Access

Parking Structure Facade and Screening Concept - Sutter-Stockton Garage

Parking Access

Parking and service entries should be from secondary streets or mid-block passageways. There should be no curb cuts on King Street other than for mid-block passageways. Entries from Berry Street, which has residential uses on the opposing street face, should be minimized.

In the office district all building service and freight handling shall be from within the building structure with only an at-grade driveway from the street into the building.

In the commercial-light industrial district it would be desirable to run a service alley behind the buildings; however, if that becomes impractical given the nature of the development that occurs there, entry may be from Owens Street provided curb cuts are kept to a minimum. In any event, all commercial light-industrial building service and freight handling should be from the side or back of the building or, better, from within the building.

Design and Screening of Parking Structures

The street facade should be designed so that it is visually interesting and so that parked cars and light sources are concealed from exterior views to the full height of the structure. Horizontal banding should be avoided. Treatment of openings in the parking structure should be consistent or compatible in scale with the openings in adjacent buildings. The materials of parking structure facades should be of a type and quality compatible with the materials of adjacent buildings.

~~**Screening of Parking**~~

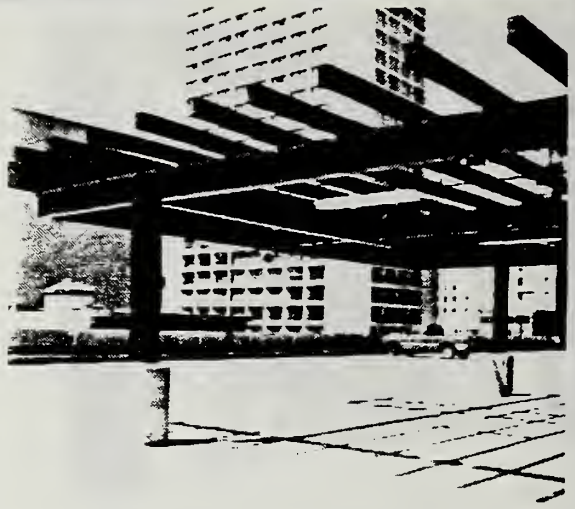
Surface parking areas should be screened from the street by an attractive solid fence which provides for adequate natural ventilation or dense landscaping at least four feet tall.

~~Along street frontages in the office district, parking structures should have retail or commercial or office uses at grade for a depth of 25 feet or more. In the commercial-light industrial district there may not be market demand to support such uses, in which case the base of the structure should be nearly solid wall with visually interesting patterns and faced with dense landscaping.~~

Roofs of Parking Structures

Roofs of parking structures visible from high surrounding buildings and the freeway should be treated to enhance their appearance. Any rooftop parking should be amply screened by parapet walls, trellises or automatically irrigated landscaping.

The use of the roofs of parking structures for rooftop gardens and/or recreational facilities would be desirable.



Parking Structure Roof Concept - Sutter-Stockton Garage

2.14 Open Space

In the office district north of the Channel and the commercial-light industrial district west of Owens Street, open space shall be provided in the ratio of one square foot of open space to 40 gross square feet of all uses except (i) residential uses, (ii) institutional uses; (iii) uses in a predominantly retail building and (iv) parking.

The open space for the office district may be on the same site as the building generating the open space, or if better open spaces can be created by aggregating the open space requirements of several sites, on another development site in the office district. The open space requirements of buildings west of Owens Street may be satisfied by the development of the linear park on the east side of Owens Street.

Courtyards and Entry Recesses

To qualify the open space must meet the following minimum standards:

(1) Be of adequate size to be attractive and practical for its intended uses;

(2) Be in such locations and provide such ingress and egress as will make the area easily accessible to the general public;

(3) Be well-designed, and where appropriate, be landscaped;

(4) Be protected from uncomfortable wind;

(5) Incorporate various features, including ample seating and, if appropriate, access to food service which will enhance public use of the area;

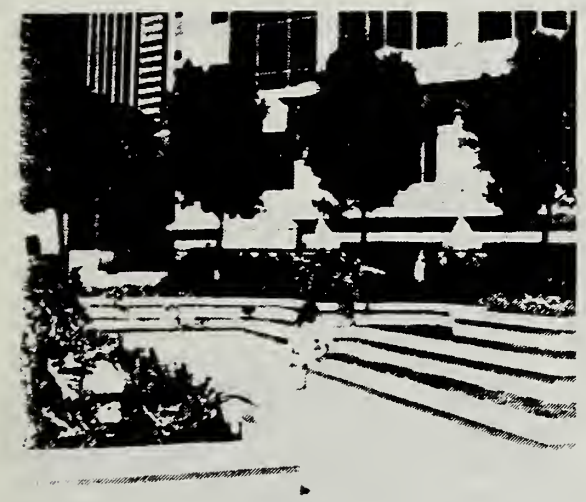
Courtyard Concept - Rincon Center

	Urban Garden	Urban Park	Plaza	Roof Garden Sun Terrace	Greenhouse
Description	Intimate sheltered landscaped areas.	Large open space with predominantly natural elements.	Primarily hard-surface space.	Wind-sheltered area on upper level.	Partially or fully glassed-in enclosure
Size	1,200 to 10,000 sq. ft.	Minimum 10,000 sq. ft.	Minimum 7,000 sq. ft.	Minimum 500 sq. ft.	Minimum 1,000 sq. ft. Min. ceiling height 20 ft.
Location	On ground level, adjacent to sidewalk, through-block pedestrianway, or building lobby.		Southerly side of the building. Should be near another plaza.	Second floor or above.	Locate in places too shady or windy to be used as open space.
Access	Accessible on at least one side of its perimeter.	Accessible from at least one street. Access from several locations encouraged. Park interior to be visible from entrances.	Accessible from a public street at grade or 3 ft. above or below street level connected to street with generous stairs.	Accessible directly from the sidewalk or public corridors. Must provide adequate signage about location and public accessibility at street level, in hallways and elevators.	Accessible from street at grade or 3 ft. above or below street level. Provide several entrances from public rights-of-way.
Seating, Tables, Etc. Quantity: one seat* per 35 sq. ft. of open space	30-50% of seating to be in form of architectural elements, such as ledges, low walls and steps, which are usable for sitting and viewing. Balance to be benches and movable chairs. One table for each 400 sq. ft. of open space.	30-50% of seating to be in form of architectural elements, such as ledges, low walls, and steps, which are usable for sitting and viewing. Balance to be benches and movable chairs. One table for each 400 sq. ft. of open space.	30-50% of seating to be in form of architectural elements, such as ledges, low walls, and steps, which are usable for sitting and viewing. Balance to be benches and movable chairs. One table for each 400 sq. ft. of open space.	30-50% of seating to be in form of architectural elements, such as ledges, low walls, and steps, which are usable for sitting and viewing. Balance to be benches and movable chairs. One table for each 400 sq. ft. of open space.	30-50% of seating to be in form of architectural elements, such as ledges, low walls, and steps, which are usable for sitting and viewing. Balance to be benches and movable chairs. One table for each 400 sq. ft. of open space.
Landscaping, Design	Ground surface primarily of high quality paving material. Install plant material such as: trees, vines, shrubs, seasonal flowers to create garden-like setting. Water feature desirable.	Provide lush landscape setting with predominantly lawn surfaces and planting such as: trees, shrubs, ground cover, flowers. Provide a water feature as major focus.	Landscaping is generally secondary to architectural elements. Use trees to strengthen spatial definition and to create peripheral areas of more intimate scale.	Terrace may take one of the following forms: • complex architectural setting which may include art works; • flower garden; • space with trees and other planting.	Interior surface may be a mixture of hard surfaces and planting areas. Water features are desirable.
Commercial Services, Food		Provide food service within or adjacent to the park. 20% of space may be used for restaurant seating taking up no more than 20% of the sitting facilities provided.	Provide retail space including food services in space around plaza. 20% of space may be used for restaurant seating taking up no more than 20% of the seating provided.	Provide food service on or adjacent to terrace.	Provide food service within greenhouse. 20% of greenhouse space may be used for restaurant seating occupying no more than 20% of the seating provided.
Sunlight and Wind	Sunlight to much of the occupied area at lunch time. Shelter from wind.	Sunlight to most of the occupied area from mid-morning to mid-afternoon. Shelter from wind.	Sunlight to much of the occupied area at lunch time. Shelter from wind.	Sunlight to most of the occupied area of terrace at lunch time. Shelter from wind.	Sunlight at lunch time highly desirable but not required.
Other	Security gates, if provided, should be an integral part of the design.	Security gates, if provided, should be an integral part of the design.		In wind exposed locations provide glass enclosure to create comfortable environment.	Include large movable windows or walls to open up greenhouse in warm weather.

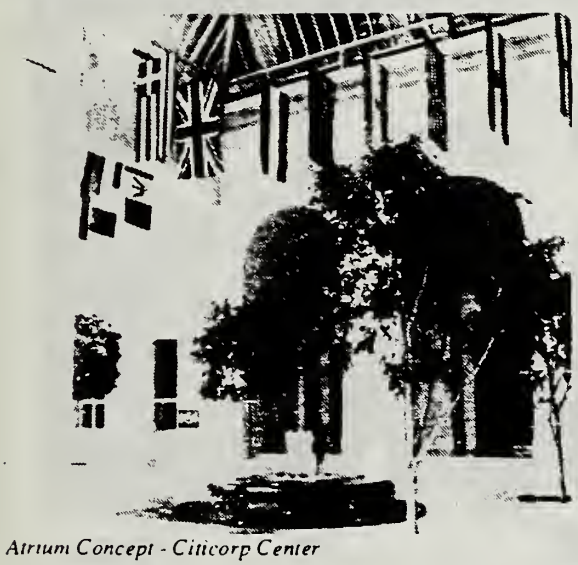
Table 3-5: Guidelines for Office District Open Space

* Dimensions:
Height 16-18"
Depth 14-16" one-sided; 30-36" double sided
Width 30" of linear seating equals one seat

Snippet	Atrium	Indoor Park	Public Sitting Area in a Galleria	Public Sitting Area in an Arcade	Public Sitting Area in a Pedestrian Walkway
Small, sunny sitting space.	Glass-covered central open space in the interior of a building or block.	Interior open space where at least one wall facing the streets consists entirely of glass	Through-block, passageway at street level, defined by glass ceiling, building set back on one side and a row of columns along the front lot line, often lined by retail shops.	Continuous, covered passageway at street level, defined by building set back on one side and a row of columns along the front lot line.	Sitting area on a sidewalk of a pedestrian-oriented street in a lunchtime mall or in an exclusive pedestrian walkway.
Varying sizes permitted.	Minimum area 1,500 sq. ft.; minimum ceiling height 30 ft.	Minimum area 1,000 sq. ft. Minimum ceiling height 20 ft. Area to be counted against open space requirement cannot exceed twice the area of the glass wall projected onto the floor plane.	Minimum average height 30 ft.; minimum clear area 12 ft. Only public sitting areas outside the circulation space which are buffered from it by various kinds of design elements will qualify.	Minimum clear width 10 ft.; minimum height 14 ft. Only public sitting areas which are delineated from the circulation space by appropriate means will qualify.	Varying sizes permitted.
On new or existing building site	Interior of building or block.	Building interior adjacent to sidewalk or public open space	In any approved galleria.	As identified in the Pedestrian Network Plan. Other locations must be approved.	As identified in the Pedestrian Network Plan. Other locations must be approved.
Accessible from public streets	On street level or 3 ft. above or below street level. Accessible from one or more sidewalks through generous hallways. Space must be made available and inviting to the general public.	Accessible from street level. Provide several entrances to make the space inviting to the public.	Accessible from public right-of-way or open space at grade or 2 ft. above or below grade level of adjoining public area.	Accessible from sidewalks or public open space at grade level or 2 ft. above or below grade. Connect arcade to public space with continuous stairs.	
Seating to be benches and/or architectural elements, such as ledges, low walls, and steps, which are usable for sitting and viewing	30-50% of seating to be in form of architectural elements, such as ledges, low walls, and steps, which are functional for sitting and viewing. Balance to be benches and movable chairs. One table for each 400 sq. ft. of open space.	30-50% of seating to be in form of architectural elements, such as ledges, low walls, and steps, which are functional for sitting and viewing. Balance to be benches and movable chairs. One table for each 400 sq. ft. of open space.	Seating to be in form of architectural elements such as ledges, low walls, and steps which are functional for sitting and viewing and/or benches outside the area of pedestrian flow.	30-50% of seating to be in form of architectural elements such as ledges, low walls, and steps which are functional for sitting and viewing and/or benches outside the area of pedestrian flow.	Seating to be in form of architectural elements such as ledges, low walls, and steps which are functional for sitting and viewing and/or benches outside the area of pedestrian flow.
Surface will predominantly be hard pavement. Add planting where appropriate.	Provide attractive paving material to create interesting patterns. Use rich plant material. Incorporate sculpture and/or water feature.	Provide attractive paving material to create interesting patterns. Use rich plant material. Incorporate sculpture and/or water feature.	Use rich paving materials in interesting patterns. Include sculpture or other works of art and water feature.	Arcades should be enhanced by creating attractive paving patterns with rich materials. Incorporate mosaics, murals or three dimensional elements into wall surfaces, coffering into ceiling surface. Include plant materials where appropriate.	Use rich paving material in interesting patterns. Include plant material.
Encourage food vendors to locate in the vicinity.	Locate food service adjacent to the atrium; 20% of area may be used for restaurant seating taking up no more than 20% of the seating and tables provided.	Provide food service. 20% of area may be used for restaurant seating taking up no more than 20% of the seating and tables provided.	Both sides of galleria should be lined with retail shops and food services. Locate sitting areas near food services. Restaurant seating is not to take up more than 20% of sitting area.	Attractive retail shops, food services and restaurants should front on the arcade. 20% of sitting area to be used for restaurant seating, occupying no more than 20% of sitting facilities and tables provided.	Attractive shops restaurants, cafes and food services should line the pedestrian walkways and lunchtime malls.
Sunlight to sitting areas at lunch time. Shelter from wind	Mass buildings surrounding the atrium in such a way as to maximize sunshine in the atrium space	Orient park to the southeast, south or southwest to insure sunlight at least during lunch time	Mass buildings surrounding galleria in a way as to maximize sunlight into the galleria space.		Sunlight to the sitting areas at lunchtime. In windy locations provide wind baffles
Credit each seat as 25 s.f. of open space. Buildings up to 100,000 g.s.f. may satisfy 100% of requirement with "snippets". larger buildings may satisfy up to 20%	Insure proper ventilation. At least 75% of roof area to be skylit.	Insure proper ventilation. Install heating to make space comfortable in cool weather. Construct glass wall to be fully or partially movable	Security gates should be integrated into overall design and concealed when not in use. At least 75% of galleria roof shall consist of skylights. Insure ventilation.		Credit each seat as 25 s.f. of open space.



Rooftop Terrace Concept - 101 First Street



Atrium Concept - Citicorp Center

(6) Have adequate access to sunlight if sunlight access is appropriate to the type of area;

(7) Be well-lighted if the area is of the type requiring artificial illumination;

(8) Be well-signed and open to the public at times when it is reasonable to expect substantial public use;

(9) Be designed to enhance user safety and security;

(10) Have convenient access to toilet facilities open to the public.

The open space requirement may be satisfied by providing one or more of the following types of open space: a plaza, an urban park, an urban garden, a roof garden or terrace, a greenhouse, a small sitting area (a snippet), an atrium, an indoor park, or a public sitting area in a galleria, in an arcade, or in a pedestrian mall on walkway, as the guidelines in Table 3-5 indicate.

3. NEIGHBORHOOD COMMERCIAL DESIGN GUIDELINES

Intent

The following guidelines for urban design are intended to preserve and promote positive physical attributes of neighborhood commercial districts and facilitate harmony between business and residential functions. The pleasant appearance of an individual building is critical to maintaining the appeal and economic vitality of the business located in it, as well as of the whole neighborhood commercial district.

The basic building form is governed by the residential design controls and guidelines for the type of building in which the commercial use will be located.

Guidelines

The following guidelines apply to the commercial base of the building.

Frontage

- The typical San Francisco pattern of corner store entrances and corner bay windows should be repeated on the neighborhood commercial blocks of Long Bridge Street. Other traditional elements of San Francisco corner stores, such as raised corner parapets and free standing corner columns should be considered.

- Front set-backs are discouraged, in order to maintain a continuous block facade line. However, outdoor activities such as sidewalk cafes and walk-up windows may be accommodated by recessing the ground story.

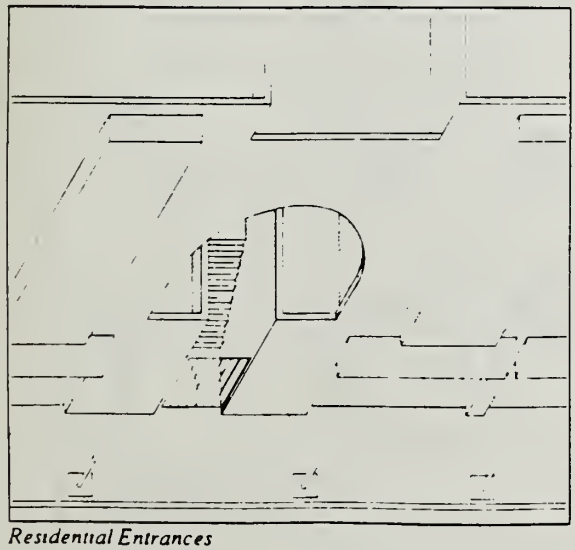
Fillmore Street Traditional Retail

Fillmore Street Contemporary Retail

Van Ness Avenue Retail

Retail Facade Treatment Concept - Stanyan Street

Retail Facade Treatment Concept - Van Ness Avenue



Residential Entrances

- Commercial facades should be compatible with the proportions and design features of the residential facades above and the facades of adjacent buildings. A desirable storefront width is 25 feet or less. Larger retail uses may occur, particularly on Third Street. However, shop entrances should be at intervals not to exceed 50 feet.

- Retail and service uses (this may include community facilities) should fully occupy the at-grade street frontage on neighborhood commercial streets, except where garage and residential entrances are required.

- To encourage continuity of "live" retail sales and services, at least one-half of the total width of any new or reconstructed building, parallel to and facing the commercial street, should be devoted to entrances, shop windows or other displays. Where a substantial length of windowless wall is found to be unavoidable, eye-level display, a contrast in wall treatment, offset wall line, outdoor seating and/or landscaping should be used to enhance visual interest and pedestrian area vitality.

- Clear, untinted glass should be used at and near the street level to allow maximum visual interaction between sidewalk areas and the interior of buildings. Mirrored, highly reflective glass or densely-tinted glass should not be used except as an architectural or decorative accent.

- Walk-up facilities should be recessed and provide adequate queuing space to avoid interruption of the pedestrian flow.

- Entrance to the upper story residential uses at-grade might be from a central lobby off the street or by stairs and garage elevator to a podium on top of the parking with residential entries from the podium.

Materials

- The materials, textures and colors of new or remodeled structures should be visually compatible with the predominant materials of nearby structures. Painted wood, masonry and tiles combined with glass panes in show cases, windows and doors are the most traditional and appropriate exterior wall materials.

Details

- Facades should be rich in architectural detailing. Architectural features such as sills, door and window moldings and panes, belt courses, columns, piers and rusticated materials should be employed.

- A new or remodeled building should relate to its surrounding area by displaying compatible proportions, textures and details. Nearby buildings of architectural distinction can serve as primary references. Street rhythms of 25 foot increments should also be continued on the facade of a new building, linking it to the rest of the district.

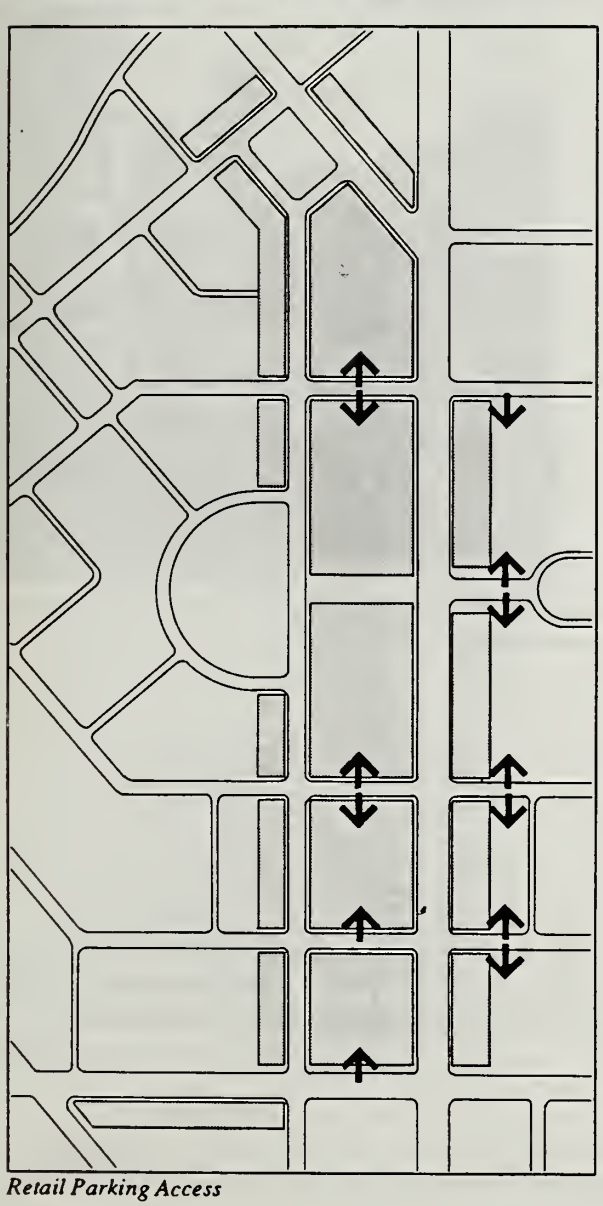
Rooftop Mechanical Equipment

- Rooftop mechanical equipment which may be visually obtrusive or create disturbing noises or odors should be located away from the areas of residential use and screened and integrated with the design of the building.

Retail Facade Materials Concept - Upper Market Street

Retail Facade Variation Concept - Chestnut Street

Retail Signage Concept - Chestnut Street



Retail Parking Access

Signs

- The character of signs and other features attached to or projecting from buildings is an important part of the visual appeal of a street and the general quality and economic stability of the area. Sign sizes and design should relate to and be compatible with the character and scale of the building as well as the neighborhood commercial district.

Parking Access

- To avoid breaking up the continuity of the retail frontage, access to parking for commercial and residential uses should be from side or rear streets to the maximum extent possible.

- Parking for all commercial and residential uses fronting commercial streets should be aggregated and organized so that parking entry from the commercial street is limited to no more than one curb cut in each block face between Park Crescent and Mission Rock Streets, Park Crescent and China Basin Channel Streets and China Basin Channel and Sixteenth Streets. There shall be no curb cuts between the two sections of Park Crescent Street. Curb cuts should be no wider than 16 feet if entry is directly to a parking garage or 35 feet if the cut is for a mid-block passageway which provides access to this parking.

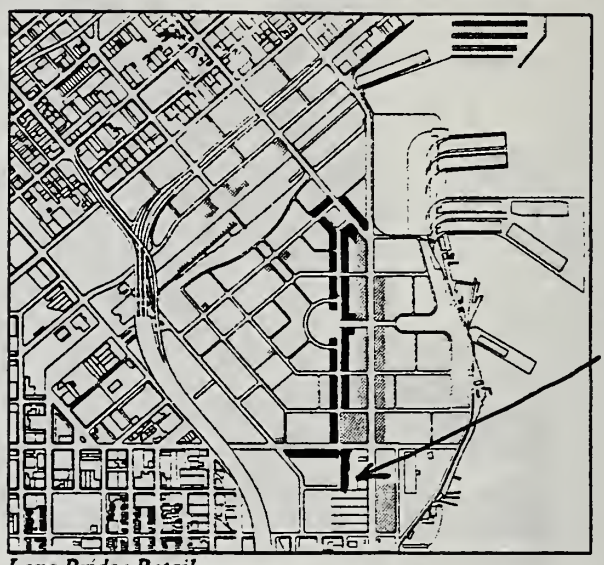
Service and Loading Areas

- Where feasible there should be a designated zone within the offstreet parking area which permits direct access to the rear of retail spaces for delivery vans and small trucks. Except for the large scale retail sites (MB-NC-S), offstreet service and loading areas are not required. In public offstreet parking structures there should be spaces reserved for service vehicles as required by the City Planning Code. To accommodate delivery to retail uses which do not have off-street freight facilities, there should be metered on-street parking reserved for commercial vehicles.

3.1 Small Scale Neighborhood Commercial Retail

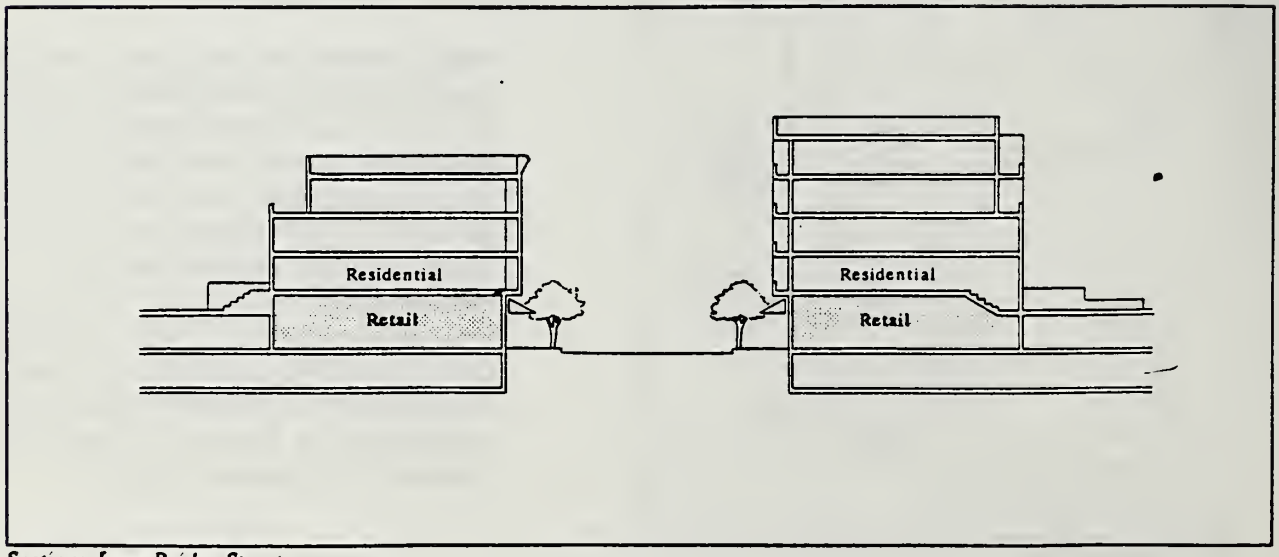
Long Bridge Street, specifically the five blocks stretching from near Channel Street to Sixteenth Street, will be the primary small-scale neighborhood commercial retail area. The intent is that it be similar to other NC-2 neighborhood strip commercial districts in the City such as Chestnut, Union, Clement and Haight Streets. Retail and other uses will be in ground level stores, with up to three stories of housing above. Retail lot sizes will vary by users' needs, with typical ranges of 25-60 feet in width and up to 60 feet in depth on average. In certain instances storefronts may be wider or smaller.

The mix of retail sales and services here will likely include: a hardware store, shoe repair shop, laundry, drugstore, butcher, produce store, restaurant, bar, clothing store, liquor store, video and/or record and tape store, and delicatessen. Pedestrian circulation will be encouraged and adequate parking will be available, both on-street and in adjacent parking structures. Similar types of shops and services will be developed on Sixteenth Street near Owens Street, to link Mission Bay better with its neighbor, Potrero Hill.

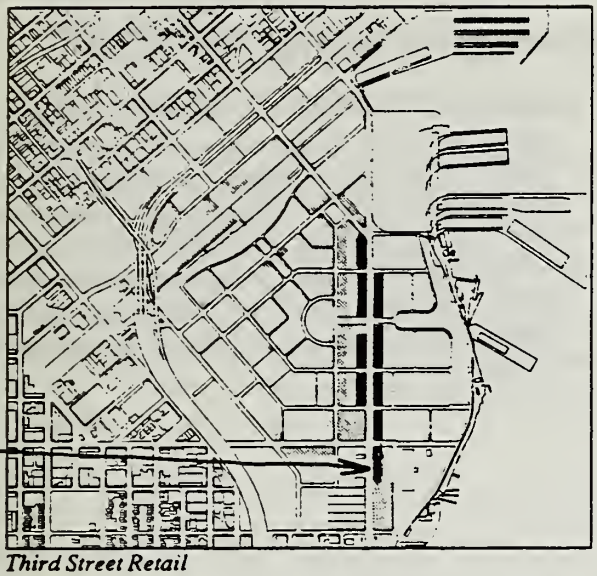


Long Bridge Retail

Long Bridge Street Concept



Section: Long Bridge Street

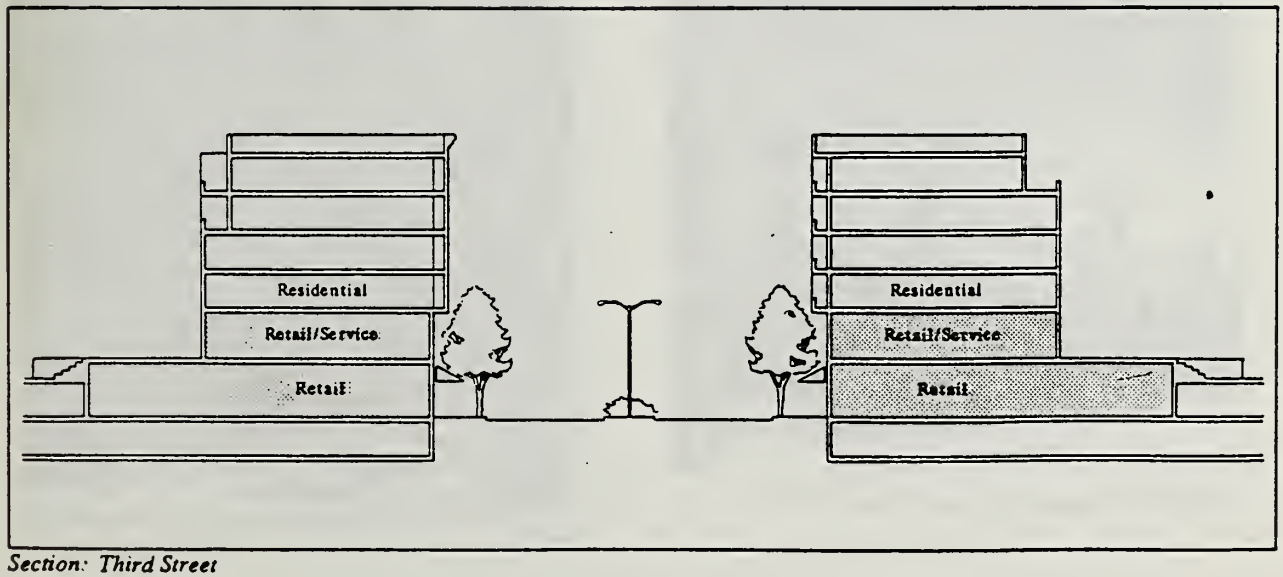


Third Street Retail

Geary Boulevard

3.2 Moderate Scale Neighborhood Commercial Retail and Service

Third Street, from near Fourth Street to Sixteenth Street, will be for moderate-scale neighborhood commercial retail and service uses. The intent is that it be similar to other NC-3 commercial streets such as Geary Boulevard and Lombard Street or Van Ness Avenue, which have somewhat larger and extensive commercial uses drawing on a larger market area than the nearby neighborhood shopping streets. Retail, service and other uses will be in the first and second levels, with up to four stories of housing above. Retail lot sizes will vary by users' needs, with typical ranges probably 50-100 feet in width and up to 80 feet in depth on average. Second floor neighborhood retail and service uses may have smaller floor sizes.



Section: Third Street

3.3 Large Scale Retail/Supermarket

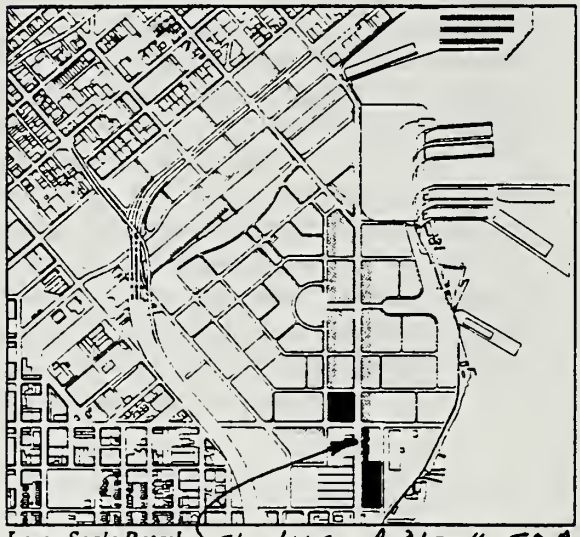
On Third Street will be two sites for large-scale retail uses and on-site accessory parking. Upper floor housing is not contemplated but is permitted.

At Third and Sixteenth Streets a 40,000 square foot supermarket is proposed with 400 parking spaces at ground level and in an adjacent parking structure.

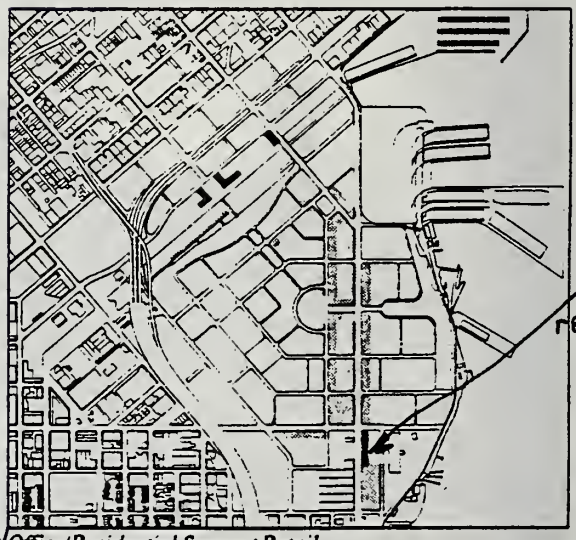
At Third and Mariposa Streets, a 60,000 square feet store may be located with 240 parking spaces adjacent to the store. Light industrial uses are also permitted here.

3.4 Office/Residential Support Retail

North of China Basin Channel along Townsend, King, Berry and other streets and encompassed within office and residential buildings will be ground floor retail, restaurants and other uses serving both the adjacent residential buildings and commercial office uses. Retail uses and shop sizes will be similar to other retail uses in high density office or mixed commercial-light industrial areas of the City.

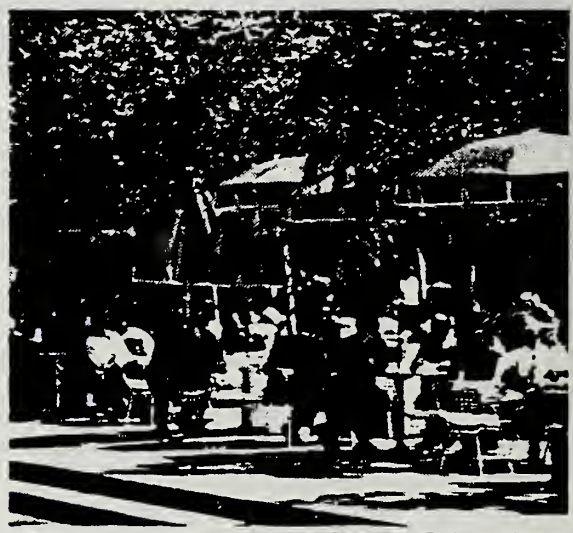


Large Scale Retail Shading of Block 50A revised



Office/Residential Support Retail

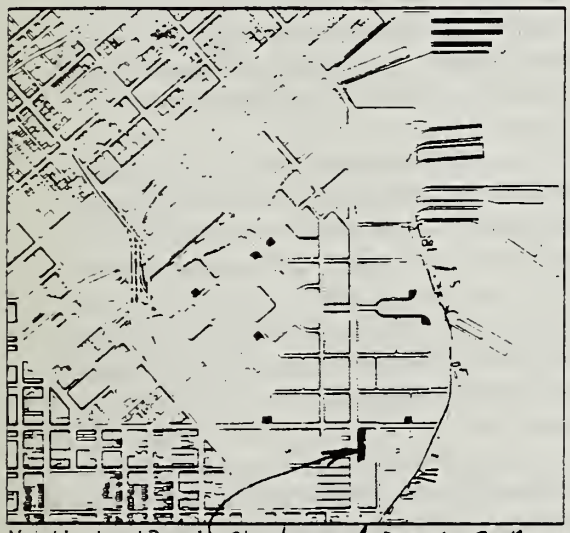
Supermarket Concept - Northpoint Center



Office/Residential Support Retail Concept - Embarcadero Center

3.5 Incidental Neighborhood Support Retail

South of China Basin Channel scattered throughout the residential and other areas will be incidental neighborhood support retail and other uses located in the bases of residential buildings. These will include small grocery stores, cafes, dry cleaners and other convenience retail similar to other individual NC-1 use districts throughout the City. Freight delivery will be from on-street curbside parking spaces.



Neighborhood Retail Shading of Block 50A revised

Neighborhood Retail Concept - Cole Avenue

4. RETAIL USE GUIDELINES

General Intent

The following guidelines should be used by property owners to guide the development of the Mission Bay retail districts. They are also to be used by the Department of City Planning and City Planning Commission for any individual permit applications requiring case by case review.

The general intent is that the mix of retail uses in Mission Bay will satisfy the needs of the residents expected to live in Mission Bay for retail convenience goods and services.

In the initial phases of the Mission Bay project, it may not be possible to fully comply with all the guidelines. However, as more of the total project is built out, the guidelines can and are expected to be met.

4.1 Guidelines for All Retail Uses

- Retail uses should be consistent with the purpose of the district in which they are located as stated in the Planning Code and the Mission Bay Plan.
- The appropriate size of an individual use will vary depending on the type of merchandise or service offered and the volume or intensity of customer activity it generates.
- Each use should contribute to the variety of uses in the district and avoid an undesirable concentration of one type of use in a certain location. Except on Third Street, a balanced mix of various neighborhood-serving uses, with no concentration of a particular use, is desired.
- The use should not detract from the livability of the district or adjacent residential areas by causing offensive noise, odors, or light, particularly in the late night or very early morning hours.

- Establishments operating in the late night or early morning hours should provide goods and services which are necessary or desirable to the community at those hours. For example, longer hours of operation may be appropriate for neighborhood-serving convenience stores such as groceries or pharmacies.

- Automated teller machines should be recessed from the sidewalk, when possible, or should be incorporated into limited financial service facilities inside the facility with adequate waiting space for patrons.

4.2 Guidelines for Specific Uses

Eating and Drinking Establishments

Eating and drinking establishments include bars, sit-down restaurants, fast food restaurants, self-service restaurants and take-out food. Associated uses which can serve similar functions and create similar land use impacts include ice cream stores, bakeries and cookie stores. Guidelines for eating and drinking establishments are needed to achieve the following purposes:

- Regulate the distribution and proliferation of eating and drinking establishments, especially in districts experiencing increased commercial activity;

- Control nuisances associated with their proliferation;

- Preserve storefronts for other types of local-serving businesses; and

- Maintain a balanced mix of commercial goods and services.

The regulation of eating and drinking establishments should consider the following:

- Balance of retail sales and services;

- Current inventory and composition of eating and drinking establishments at the time a new such use is considered;

- Total occupied commercial linear frontage, relative to the total district frontage;

- Uses on surrounding properties;

- Available parking facilities, both existing and proposed;

- Existing and projected traffic and parking congestion; and

- Potential impacts on the surrounding community.

The following guidelines should be employed in the consideration of new establishments, relocations, changes from one kind of eating and drinking establishment to another (e.g. from self-service restaurant to full-service restaurant), expansion or intensification of eating establishments:

- The establishment should not add to an over-concentration of eating and drinking establishments in the area. The balance of commercial uses may be threatened when eating and drinking establishments occupy more than 20% of the total occupied commercial frontage. Proposals for eating and drinking establishments which would increase the proportion of total occupied commercial frontage above 20% should be reviewed to ensure that they would not reduce the variety of neighborhood-serving uses nor create substantial noise, traffic, parking problems or other nuisances in the district or surrounding neighborhood. Those establishments that would do the above should not be permitted. Such establishments should not occupy more than 25% of the total commercially occupied frontage in a district. To minimize the problems they can create, eating and drinking uses should generally be at least 100 feet apart from each other, unless there are factors making clustering of uses appropriate. For example, a configuration of clustered eating and drinking uses where off-street parking is shared might be more appropriate than an even distribution of such establishments.

- If locating at the ground story, the use should contribute to an active retail frontage. Individual uses which do not serve the general

public during regular business hours, such as churches, are encouraged to share ground story space with more active uses.

- The use should fully utilize available floor area. Uses which require a limited amount of ground story frontage, such as limited financial services and hotel lobbies, should, if possible, provide access to remaining space for use by other establishments.

- New, expanding or relocating uses should not significantly increase traffic congestion or parking problems. Each use should be evaluated for its anticipated impacts on the transportation systems (i.e. traffic circulation, parking, transit service, pedestrian circulation) particularly during peak traffic hours and with respect to surrounding residential areas. The degree of detail in the analysis should be commensurate with the size and location of the use (compared with traffic volumes and parking availability), its potential as a heavy trip generator and the level of transportation and parking in the vicinity.

If the use will generate significant additional traffic congestion, then the use should be redesigned to mitigate such congestion or the use should not be allowed.

If the use will generate significant additional traffic congestion, then the use should be redesigned to mitigate such congestion or the use should not be allowed.

If the use will generate parking demand which cannot be accommodated by the district's existing or projected supply, the use should be redesigned to reduce parking demand or parking should be provided in an amount adequate to meet demand. Such parking should be appropriately located, designed, landscaped and operated. If adequate parking does not or will not exist or cannot be provided, or excess parking demand cannot be otherwise mitigated, the use should not be allowed.

The following types of uses are potential heavy vehicle trip generators, due to the nature and/or size of use, and should be closely examined.

Commercial Uses

- Fast Food Restaurant, Self-Service Restaurants and Take-Out Food Establishment (with or without drive-up facility)
- Full-Service Restaurant
- Supermarket
- Convenience Store (Late-night or 24-hour)
- Bank or other Financial Service (with or without automated teller machine or drive-up facility)
- Automotive Gas or Service Station
- Medical Service

Institutional Uses

- Hospital or Medical Center
- Post Office

Potential traffic impact and parking demand generated by the use should be evaluated, using estimates of the numbers of customers and trips generated by the use and the distribution of different types of trips by mode of travel for various time periods, when possible, on a neighborhood or area-specific basis. Other comparable uses in similar locations should be examined and the transportation problems they generate should be assessed.

In the case of fast food restaurants and other take-out food uses, information should be provided as to expected rate of turnover and proportions of customers taking out food vs. eating on-site. In evaluating customer volume, the size of the kitchen should be considered; high customer volumes may be anticipated for a facility with a kitchen occupying 500 square feet or more. Other special types of retail operations such as those with small catalog showrooms and large inventory storage areas also may need especially detailed projections of customer volumes.

The analysis should indicate whether the use is likely to:

- Aggravate significantly on-street parking problems and shortages or cause waiting vehicles to queue across the sidewalk into the street or into a high-volume vehicular or transit lane or bus stop, especially during the peak hours of traffic or transit volume.

- Attract a significant amount of additional vehicular traffic into the area and adjacent neighborhoods.

- Worsen significantly pedestrian circulation in the area and/or significantly increase the potential for pedestrian/vehicle conflicts.

Financial Services

- Financial offices should not be located near other financial service uses or add to an overconcentration of financial services. It is generally preferable that financial services be at least 500 feet apart. In certain locations, however, clustering may be appropriate, depending on potential traffic circulation and parking impacts, but in no case should the number exceed the maximum number that would be allowed if all financial services in the district were at least 500 feet from each other. For example, a configuration of clustered financial services where off-street parking is shared might be a more efficient use of land than an even distribution of such financial services.

In addition to overconcentration within a single area, proximity to financial services in other nearby areas should be considered in evaluating the need and impacts of a new financial service use or a new location for an existing financial service establishment.

- Eating and drinking uses should be adequately soundproofed or insulated for noise and operated so as to reasonably protect adjoining and surrounding upper-story residences from disturbances. Fixed source equipment noise should not exceed the decibel levels specified in the Noise Control Ordinance. Outdoor activities associated with an eating and drinking or entertainment establishment which abut residentially-occupied buildings should be discouraged.

Fast Food Restaurants and Self-Service Restaurants

Fast food restaurants and self-service restaurants including take-out food establishments are retail uses which provide quick food service for consumption on or off the premises, which are often designed to serve a high volume of customers at a high turnover rate. As a result, this use can generate problems in traffic and pedestrian circulation, parking congestion, litter, noise and odors. All guidelines for eating and drinking establishments should apply to fast food restaurants and self-service restaurants in addition to the guidelines stated below.

- Large fast food restaurants occupying more than 1000 square feet of floor area are discouraged in Mission Bay except along Third Street. Large fast food restaurants of that size usually are designed to attract high volumes of customers from a large trade area. Such volumes of customers can generate various nuisance problems for the surrounding residential neighborhoods, especially parking congestion, traffic and pedestrian circulation, litter and late-night activity.

- The proposed use should not add to an overconcentration of fast food restaurants. As a general rule, fast food restaurants should be evenly distributed throughout the commercial areas. However, in certain locations, clustering may be more appropriate. For example, a configuration of clustered fast food restaurants where sufficient off-street parking is shared between them might make more efficient use of land than an even distribution of fast food restaurants throughout the district. The number of large fast food restaurants and small self-service restaurants should not exceed the maximum number that would be allowed if all fast food restaurants in the district were at least 500 feet from each other.

- Fast food restaurants should be located to avoid potential pedestrian-vehicle conflicts where large numbers of children are present.

- The use should provide adequate waiting space for walk-in patrons.

- The use should be equipped with sufficient outdoor and indoor trash receptacles to avoid litter problems in the surrounding neighborhood.

- The operator of the use should be responsible for maintaining the sidewalk within a one-block radius of the site free to paper or letter.

- The use should be designed and operated to contain fumes and odors within the cooking areas, so that such fumes and odors will not spread to adjacent or upper-story uses.

- The new or expanding use should close at 12:00 Midnight or earlier.

Take-Out Food, Convenience Stores and Similar Quick-Stop Establishments

Quick-stop establishments include fast food restaurants, self-service restaurants, take-out food, convenience stores and other quick-stop establishments which may or may not involve food service. These latter uses may include small or medium-sized grocery stores, film processing stores, video rental outlets, dry cleaners, and other establishments which primarily provide convenience goods and services and generate a high volume of customer trips. Guidelines for fast food restaurants and self-service restaurants including take-out food are noted separately above.

- These uses should be interspersed with other retail businesses and avoid undue concentration of one type of product.

- The site should provide adequate waiting space for walk-in or drive-in patrons.

- The site should be equipped with sufficient outdoor trash receptacles to avoid litter problems in the surrounding neighborhood.

Entertainment Uses

The following guidelines should be used in the review of entertainment uses where they are permitted:

- Entertainment uses should not be open after 2:00 a.m. in order to minimize disruption to residences in and around a district. For uses involving liquor service, potentially loud music, dancing or large patron volumes, earlier closing hours may be necessary.

- Entertainment uses should be adequately soundproofed or insulated for noise, as certified by an acoustical engineer, and operated so as to reasonably protect surrounding residences. Fixed source equipment noise should not exceed the decibel levels specified in the San Francisco Noise Control Ordinance. Ventilation systems should be adequate to permit doors to stay closed during performances.

- Except for movie theaters with substantial soundproofing, entertainment uses should not involve electronic amplification after midnight, in order to minimize disruption to surrounding residences.

Auto Repair Services

- Adequate building space should be provided for carrying out all repair services inside the building.

- Auto repair facilities should be large enough to accommodate all cars on site and avoid on-street parking of cars before or after repair work is done. If temporary on-site storage of cars must be outside the building, suitable landscaping or screening should be provided.

The overall height of the hotel site is 45 feet, consistent with the adjacent residential parcels.

5. HOTEL DESIGN GUIDELINES

Intent

The intent of these guidelines is to permit development of a low-rise hotel which:

- relates in height and scale to the surrounding residential neighborhood;
- maximizes views to the Bay, Channel and the downtown skyline;
- defines streetscape in the traditional manner, emphasizing pedestrian entrances along Third Street and the Channel edge;
- contributes visually to the major open space to be created across Third Street and to the public open space along the Channel;
- maximizes solar access to any open space, courtyard and/or other semi-public areas on the site;

Lot Coverage

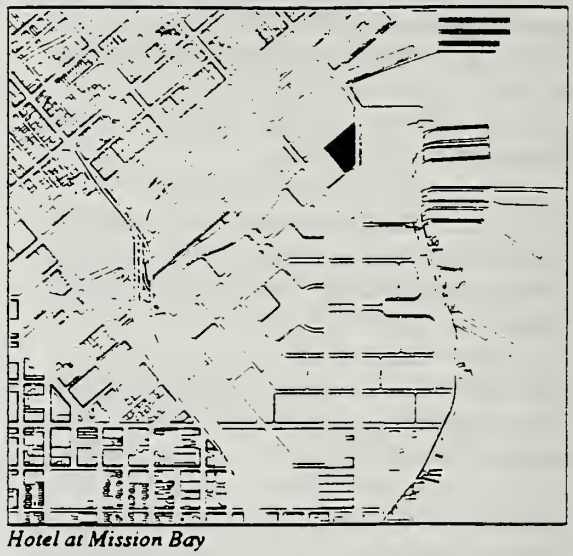
Substantial build-out of the entire hotel site is allowed with a maximum FAR of 4.5 to 1, provided that service and parking access are accommodated on-site.

Height and Bulk

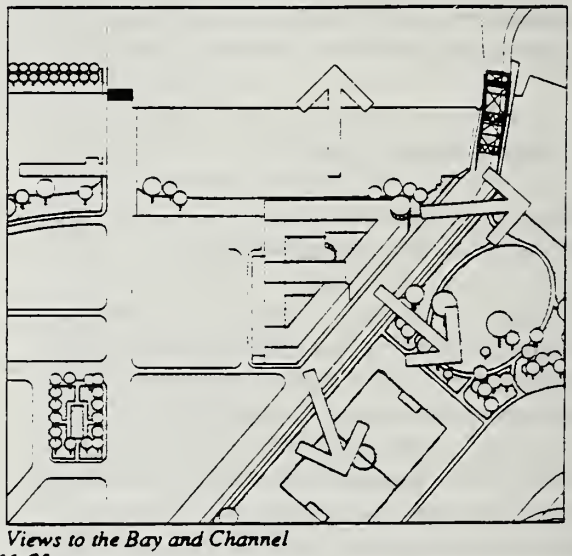
To protect sunlight to public open space areas adjacent to the hotel site along the Channel and across Third Street, the hotel should not exceed a height which would cast any greater shadow on the open spaces than would be cast by a 40 foot high building on the edge of the open spaces. There is no bulk limit.

Building Articulation

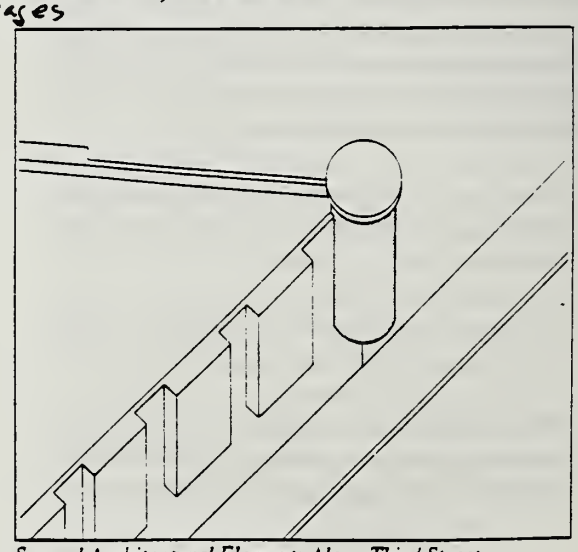
To add visual interest and break down the appearance of bulk, the building should be articulated by various scaling devices such as changes in cornice height, changes in roof forms, use of bay windows, changes in color and/or building material, stepping up height at corners and/or entries. ~~Variation in height below 40 feet is not necessary. Variation in height above 40 feet, in the limited area on the site where it is permitted, would be desirable.~~



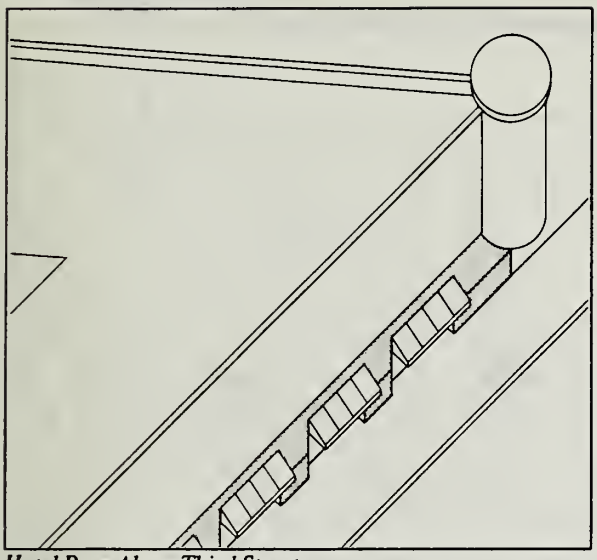
Hotel at Mission Bay



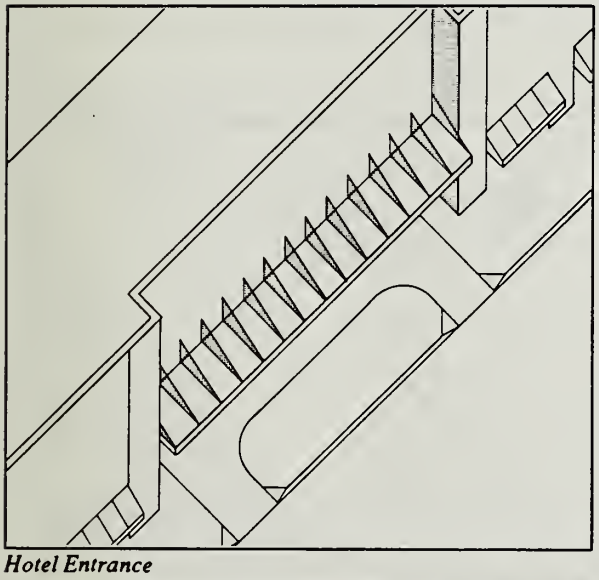
Views to the Bay and Channel



Special Architectural Elements Along Third Street



Hotel Base Along Third Street



Hotel Entrance

Hotel Entrance Concept - Mandarin Oriental

Design Character

The hotel should be complementary in scale and articulation to the character of the adjacent residential neighborhood development, without necessarily duplicating a residential type architecture. Special architectural elements at the building corners along Third Street are encouraged, especially at the corner of Third Street and China Basin Channel to create a gateway symbol for Mission Bay and to give the hotel a special appearance.

Base of Building

The base of the hotel building is likely to contain functional and support spaces for the hotel operations which may require solid walls on the street. They are allowed on frontages other than Third Street and the northern edge facing the Channel, provided that adequate architectural scale and/or rustication is achieved through the use of reveals, patterns, changes in wall planes or other devices that are compatible with the overall building architecture. Landscaping, awnings, canopies or trellises are also encouraged.

The Third Street and Channel frontages should contain windows with untinted glass to allow maximum visual interaction between pedestrian/automobile traffic and the hotel interior. The building frontage which borders a 50 foot wide public open space on the Channel would be an appropriate location for cafes and stores. Awnings, canopies and appropriate signage should also be used to maximize visual interest.

Building Entrances

A prominent building entrance for pedestrians and automobile drop-off functions should be created along Third Street. The entrance should serve as the main entrance to the hotel site and be defined architecturally to express its significance.

Building Materials

Building materials may range from polished granite and high-grade concrete to high quality wood and stucco construction. Reveals, moldings and other devices should be used to help soften the appearance of harder materials. Extensive areas for glass curtain walls should be avoided, except where atriums or major building entrances use glass as a means of creating transparency into the building. Mirror glass or densely colored glass is discouraged except when used sparingly as a decorative element.

Building Roofs

The roof of the hotel should be delineated in a manner compatible with the surrounding residential architecture. Mechanical equipment should be enclosed and incorporated into visually interesting building tops.

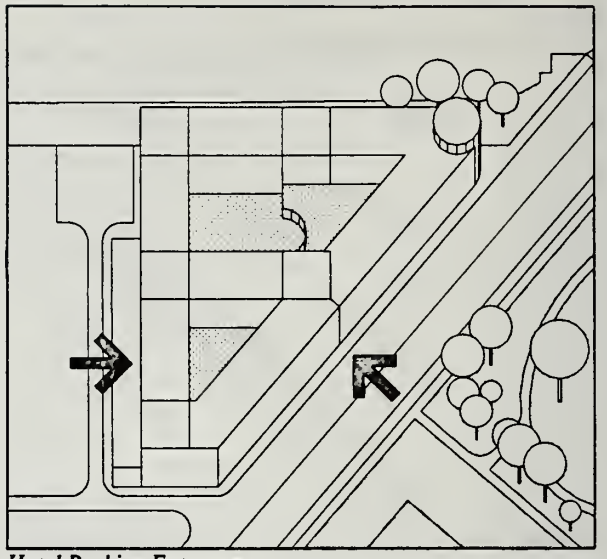
Parking Entrances

Entrances to the hotel parking should be from an auto court along Third Street, Channel Street, or from a shared service/parking court along the west side of the hotel. If access is provided from Third or Channel Street, the maximum width of the access should be two lanes, one inbound and one outbound. If shared with service along the west side, the access should also share the service lanes, if possible, in order to minimize the visual impact on the views from the adjacent residential property.

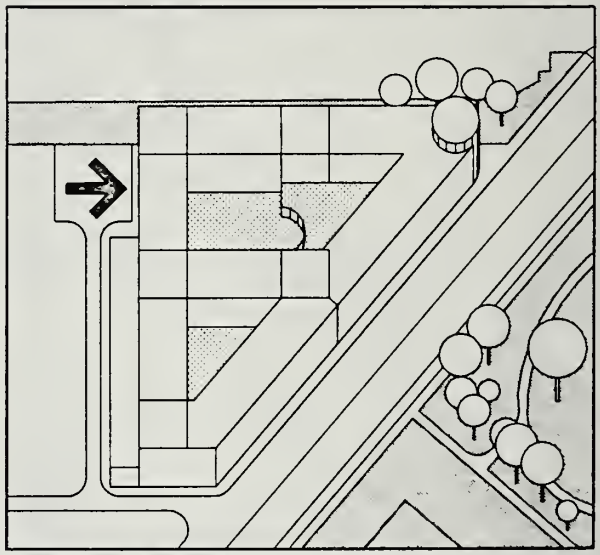
Service Entrances and Areas

The service entrance to the hotel should be located on the west side of the hotel building, preferably at the terminus of the mid-block passage which separates the hotel site from the residential site to the west.

There should be adequate architectural or landscape screening of the service area as well as careful location of the service doors, trash compactors and utility boxes, in order to minimize the impacts on views from the adjacent residential development to the west.



Hotel Parking Entrances



Hotel Service Entrances

COMMUNITY FACILITIES

Community, cultural and public facilities in the Mission Bay neighborhood will occupy about 25 acres. These will include major public facilities such as a cultural center for the performing and visual arts, a recreation center and a public school. Considerable space in office and residential buildings around the plan area will also be devoted to smaller public or non-profit services such as child care, senior care and social services. Eleven acres have been set aside for public facilities such as an arena or recreation facilities, and eight acres will become a MUNI Metro storage yard for its light rail vehicles. This section describes the variety of public facilities planned in Mission Bay, their location, scale and functions.

OBJECTIVE 25: ASSURE THAT ADEQUATE COMMUNITY SERVICES AND FACILITIES ARE PROVIDED FOR MISSION BAY RESIDENTS AND WORKING POPULATION.

Policy 1: Provide for general community services and recreation facilities, at a scale appropriate to serve Mission Bay.

Policy 2: Provide opportunities for neighborhood services that are linked to other neighborhood and citywide services.

Policy 3: Provide for a cultural center that is multi-purpose in character, attractive in design, secure and comfortable, and inherently flexible in meeting the current and changing needs of the neighborhood served.

Policy 4: Encourage the establishment of neighborhood services and administration which ensure responsiveness to changing neighborhood needs.

Policy 5: Provide for community facilities and programs that are accessible for physically handicapped persons.

Policy 6: Provide for such additional community services, including childcare, as are determined to be necessary and feasible.

Policy 7: Provide the opportunity for health and educational institutions to locate in Mission Bay.

Community and cultural facilities in Mission Bay are programmed to meet a variety of cultural, social and health needs for the residents. They will act as part of the citywide range of public facilities and services but will allow Mission Bay to be self-sustaining as a neighborhood.

A cultural facility of about 26,000 square feet is planned in a handicapped-accessible building at the community plaza between Crescent Park and Third Street. It will be located at the southwest or southeast corner of Long Bridge Plaza, in a mixed-use building. A performing arts center or theater of about 13,000 square feet, would face Long Bridge Plaza, integrating outdoor plaza space with indoor events. In the center, there will be a 200-seat small stage theater. Other parts of the complex could accommodate classroom/exhibition space, a multi-purpose room and a meeting room. The interior design will be flexible so that space can be organized to accommodate a variety of activities. All public facilities will be physically accessible for disabled persons. Cultural events, whether performances or exhibitions, will encourage social interaction on the Plaza before and after the events. Ground floor dining opportunities along the Plaza will further enliven this community place.

A 16,000-square foot recreation center/gymnasium is to be located adjacent to Mission Bay Green. Community meeting rooms, offices for health and social services, child care and other community activities can be accommodated within affordable housing sites. Churches may locate within residential and residential/commercial blocks. Third Street is the preferred location.

Child Care Facilities

A school site on 1.6 acres is provided at Channel and Owens Streets. The site is reserved for a school to serve the educational needs of a developing Mission Bay community. School athletic facilities will be available to the community outside school hours.

Licensed child care centers will be located in convenient commercial and residential locations throughout Mission Bay. There are likely to be at least ten child care centers, each with about 3,000 square feet of interior space. Funds, generated through the payment of an in-lieu child care fee by the Project Sponsor, will be used for the development of child care facilities on some of the City's seventeen affordable housing sites within Mission Bay. Additional facilities may be provided in other large housing projects. Family day care can be provided within any caregiver's home in residential buildings including senior citizens' housing.

The affordable housing sites to be developed by the City will include other community facilities as some appropriate. For example, senior housing developments will also include senior centers offering educational and social services for seniors.

Police and Fire Facilities

OBJECTIVE 26: PROVIDE WELL-LOCATED FIRE AND POLICE SUPPORT FACILITIES THAT MAXIMIZE THE EFFECTIVENESS, USE AND ACCESSIBILITY OF FIREFIGHTING AND POLICE SERVICES.

Policy 1: Locate and design facilities in a manner that encourages constructive police and neighborhood interaction.

Up to 60,000 square feet for fire and police personnel will be accommodated in a new building that incorporates the existing fire station building at 1300 Fourth Street. Expansion at this location will make these services more immediately acces-

The City sites on Third Street (Blocks 27A, 33A and 50A) can accommodate a variety of community and cultural facilities in approximately 85,000 square feet

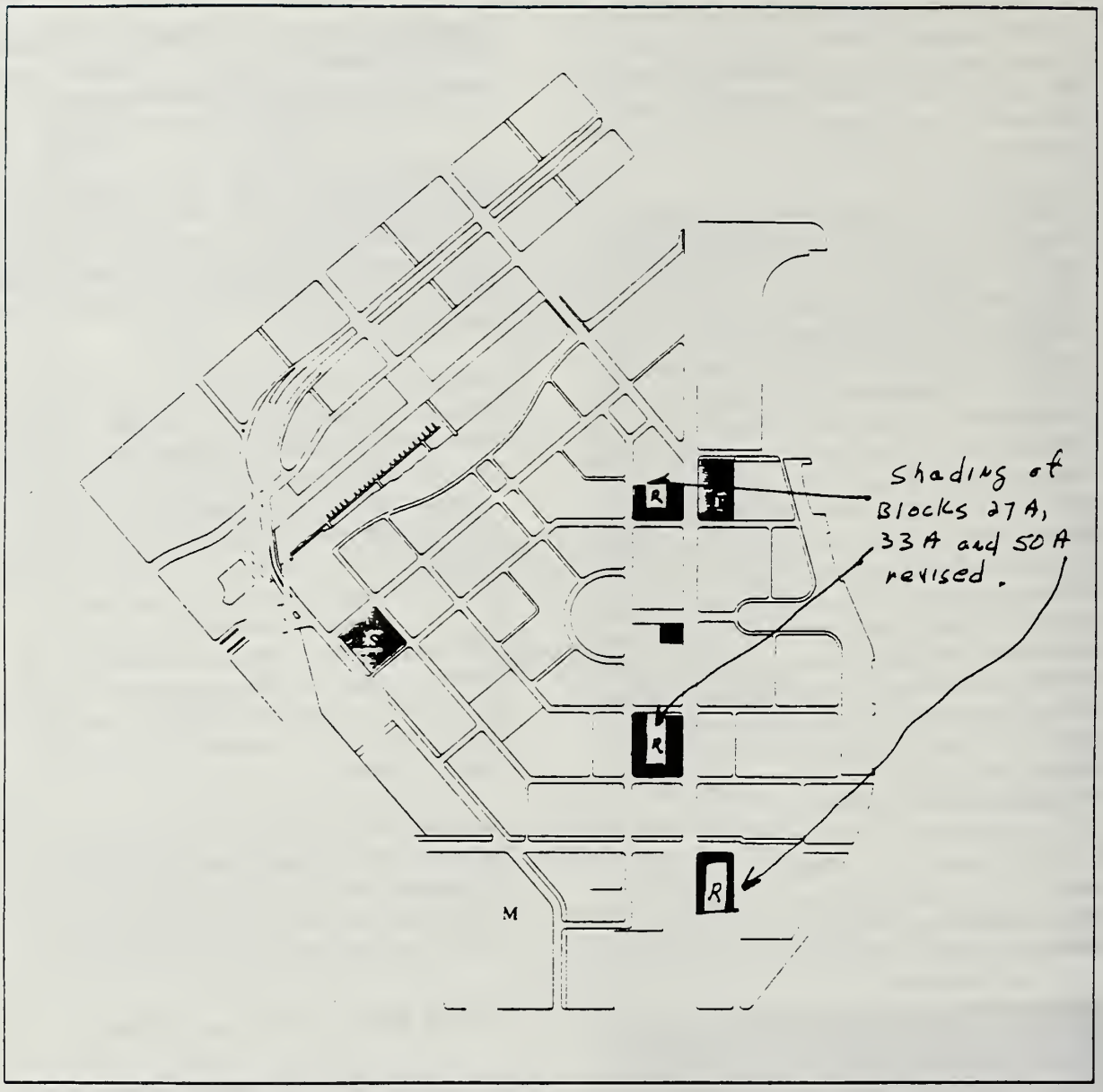


Figure 15: Community and Cultural Facilities Plan

S — Public School

Police, Fire and Recreation

M — MUNI Metro Facility

Other Public Facilities

Cultural Center/Theater

Community Facilities/Retail

sible to Mission Bay residents and employees. Also, the Third Street location makes them available for emergencies in surrounding areas. The proximity of the fire and police facilities to the nearby recreation center will encourage leisure interaction between residents and firemen/police officers.

Public Facilities

At the corner of Seventh and Townsend Streets, a 11.3 acre site will be used for public facilities. This may include such uses as an arena, museum, indoor and outdoor recreation and athletic facilities or theaters.

Utilities

OBJECTIVE 27: ENCOURAGE EFFICIENT UTILIZATION OF EXISTING UTILITIES WHERE FEASIBLE.

Policy 1: Provide adequate utilities for each phase of development.

The Mission Bay plan area is already served by water, sewer/storm drainage, solid waste, electricity, gas and communications systems that provide service for existing uses. These systems are all part of Citywide utility systems. For the planned, more intensive uses, each of the utility systems must be upgraded on site to provide needed capacity. Figure 16 illustrates the proposed major improvements needed for each system. These improvements will amply accommodate the planned build-out of Mission Bay.

WATER SYSTEMS

The proposed water systems consist of a low pressure domestic water system which will provide potable water to residents and businesses, a separate system of high pressure mains and hydrants as another layer of fire protection, and a third system of fire protection involving the construction of cisterns placed throughout the site. Finally, the City is proposing that suction inlets be placed along China Basin Channel and along Bay frontage so that salt water could be pumped for fire fighting purposes in the event of a major fire.

The proposed low pressure water system will entail the removal of existing water mains from streets to be abandoned, the installation of new mains, hydrants and services in streets to be constructed, and the installation of lines connecting existing short dead-end mains. Much of the existing system in streets to be retained is in good condition and will not require major upgrading.

The proposed high pressure water system will provide additional interconnections and upgrading to provide increased fire protection for Mission Bay. The retention of the present Third Street, Fourth Street and Sixteenth Street rights-of-way will eliminate the need for major relocation of the existing high pressure water lines serving the site.

Approximately six (6) cisterns will be located throughout the plan area adjacent to planned streets and low pressure hydrants (for occasional flushing and filling needs). These underground tanks will be fitted with standpipes which then are connected to pumper trucks when extraordinary demands are made on other elements of the fire fighting system.

Suction inlets will connect at the China Basin Channel and the San Francisco Bay with lateral extensions as required to make them readily accessible for the Fire Department.

COMBINED SEWER

Like most of San Francisco, the existing sewer system in Mission Bay combines domestic and industrial sewage flows in the same conduit as storm water. Because such a system makes extraordinary demands on sewage treatment facilities during periods of heavy rain, large reinforced concrete underground storage facilities have been constructed along both sides of China Basin Channel. In the area south of China Basin Channel, existing sewage flows into an 11 foot square box. North of the Channel, sewage flows into an even larger concrete box located in Berry Street. The planned new system will use these same facilities as the termination point for the new collecting sewers.

The proposed sewer plan anticipates that Mission Bay may be served by new pump stations located

adjacent to the large storage conduit south of China Basin Channel, by the existing but recently enlarged pump station at the Bay terminus of Mariposa Street and in the North of Channel area by gravity flow into existing facilities. Most of the plan area sewage will flow through gravity mains to pump stations that may be constructed as part of the plan. To the extent feasible, existing sewer lines in good condition will be retained.

ELECTRIC POWER

According to the Pacific Gas & Electric Company (the suppliers of electric power and gas to the site), some of the existing primary system may be adequate to serve Mission Bay and could reduce the projected new primary service needs. All streets within the plan area will have new secondary power lines installed.

GAS SUPPLY

All existing low pressure mains that are adequate to serve existing and new uses will likely remain. Based on parameters established by PGandE, where existing low pressure mains are inadequate to serve the need of the plan area, new high pressure mains will be installed. No new low pressure mains will be installed within the plan area.

MUNI ELECTRICITY

The plan area will be served by a variety of MUNI services. The 22, 30 and 47 trolley lines and the MUNI Metro lines have significant structural requirements. The system requires undergrounding of a power source along each MUNI route with energizing of the overhead lines at approximately 600 foot intervals. There is a need for a direct current substation near the multi-modal terminal at Owens and Channel Streets and tentatively a need for one other substation.

STREET LIGHTING

The present lighting system is provided by PGandE, the San Francisco Department of Electricity and the San Francisco Bureau of Light, Heat and Power. The public systems are augmented by private street lighting systems in an inconsistent pattern throughout Mission Bay. The multi-jurisdictional nature of supply for these existing facilities has left gaps. The proposed system will consist of up to 470 new street lights positioned in a consistent pattern through the plan area.

CABLE TELEVISION FACILITIES (CATV)

The plan area currently has no CATV facilities. Service will be provided to all locations within Mission Bay. Installation of the necessary conduits, junction boxes and services will be coordinated with the construction of other joint trench facilities.

TELEPHONE

The existing telephone systems that are mounted on poles will be eliminated and placed underground. Existing underground systems that conflict with new land uses and rights-of-way will have to be rerouted as each phase of the plan area is developed. Installation of the necessary conduits, junction boxes and services will be coordinated with the construction of other joint trench facilities.

TRAFFIC SIGNALS, POLICE AND FIRE ALARMS

The proposed system calls for twelve (12) new signals to be constructed, including four new signals along the King Street transportation corridor. Additionally, four existing signals will be upgraded to current design standards. It is anticipated that the signals will be interconnected so that timing can be adjusted to respond to peak traffic demands.

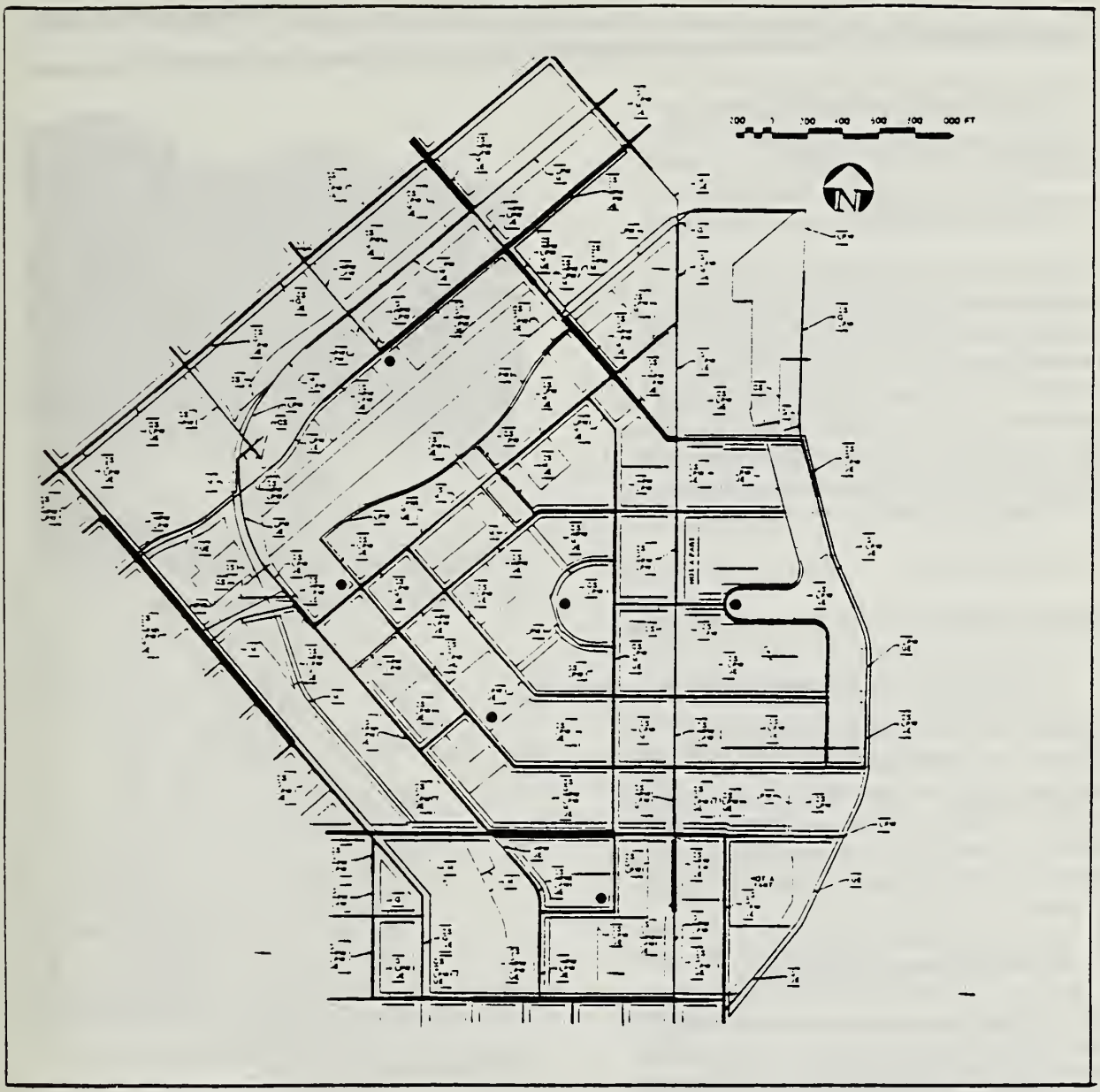


Figure 16: Utilities Plan

Legend

▬▬	MAJOR UTILITY CORRIDOR
CS	COMBINED SEWER
G	GAS **
HPW	HIGH PRESSURE WATER
LPW	LOW PRESSURE WATER
M	MUNI ELECTRIC
UE	UNDERGROUND ELECTRIC *
●	CISTERN

Note: There will be no new overhead electrical within the Mission Bay boundaries except MUNI trolley and MUNI Metro lines.

* Note: All streets within the project area will have secondary power lines installed to serve the project.

**Note: All existing low pressure mains that are adequate to serve new uses may remain. In all new and existing streets where low pressure mains are inadequate, high pressure mains will be installed.

Community Facilities Design Guidelines

1. GENERAL INTENT

The intent of these guidelines is to integrate the essential community and cultural facilities necessary for a neighborhood into the framework of the Mission Bay plan. The following guidelines are intended to assure that facilities are located and developed in a manner that reflects the general character of the neighborhood and surrounding uses, consistent with the design guidelines for other neighboring Mission Bay land uses.

San Francisco Public School Concept - McKinley School

2. GUIDELINES

The community facilities fall into three categories:

2.1 Social Services and Small-Scale Community and Cultural Services

Scattered child care, senior health and social services located in housing, neighborhood or large scale retail, office or commercial-light industrial buildings. These facilities should be designed to conform to those particular building guidelines and the special requirements of the service being provided.

and other community and cultural services will be

2.2 Private Schools and Churches

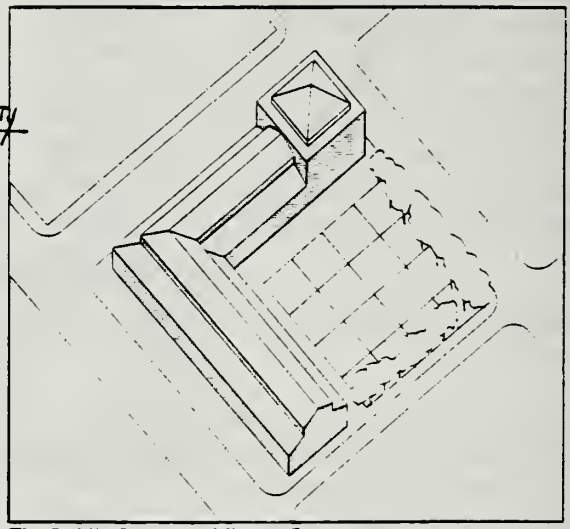
These facilities may be located as a conditional use on any block that does not front on the major open space areas. These areas are excluded to preserve the opportunity for unified facade treatments (see Residential Design Guidelines).

Churches need not conform to specific design guidelines and are encouraged to become special visual elements and focal points.

2.3 Major Public Facilities

The Public School

- The Public School should be similar in scale and character to a typical San Francisco public school and compatible with surrounding Mission Bay structures.
- Entrances should be directed toward the neighborhood being served.



The Public School At Mission Bay

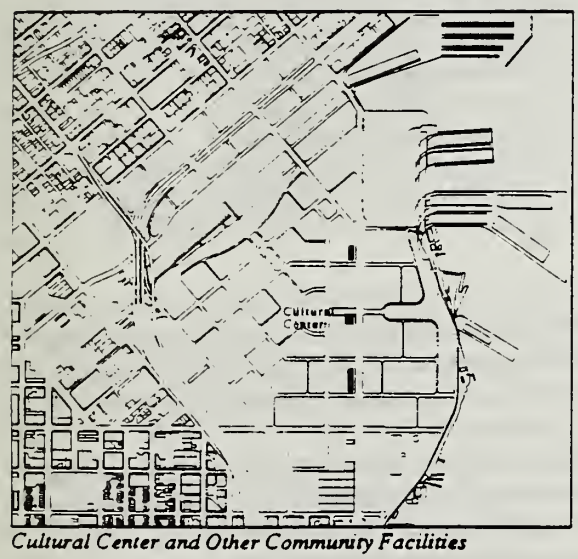
- The associated play areas should be directed toward the major open space area.
- Parking and drop-off access should be in the 35-foot wide lane on the south side of the school and on Sixth Street.

The Public Safety~~/Recreation~~ Complex

- The Public Safety Complex should be designed in a manner which incorporates the historic fire station and enhances it as a strong architectural element. If possible, the entire station structure should be adapted to continued use.
- New buildings should be of a sensitive scale and articulation to the existing building.

• School, recreational and public assembly areas should be made available for community use outside school hours.

Existing Fire Station



Cultural Center and Other Community Facilities

- The existing historic building should dominate the Third Street facade wall. New buildings should be set back ~~somewhat~~ to give the existing building the desired dominance. ~~where the existing building extends into the street right-of-way some three or four feet.~~
- New buildings should be oriented in a manner to create an enclosed area for parking of service vehicles, patrol cars and other equipment. Absent the ability to do that, the parking area should be screened by an attractively designed solid wall and landscaping.
- Building roof forms should be sensitive to the scale and form of the existing historic structure.

The Recreation Center

- The Recreation Center should be oriented toward Mission Bay Green and to provide access to outdoor areas.
- Blank walls should be directed away from the neighborhood residential views.
- Roof forms should be made compatible with adjacent residential roofs.

The Cultural Center and Small-Scale Community Facilities on Third Street

- The Community Cultural Center should be located on Long Bridge Plaza at Third Street or Long Bridge Street on the ground floor of the retail/residential building located there.
- The design of the facade should follow the guidelines for neighborhood commercial frontages except that its entry should be given more prominence to denote its civic role.

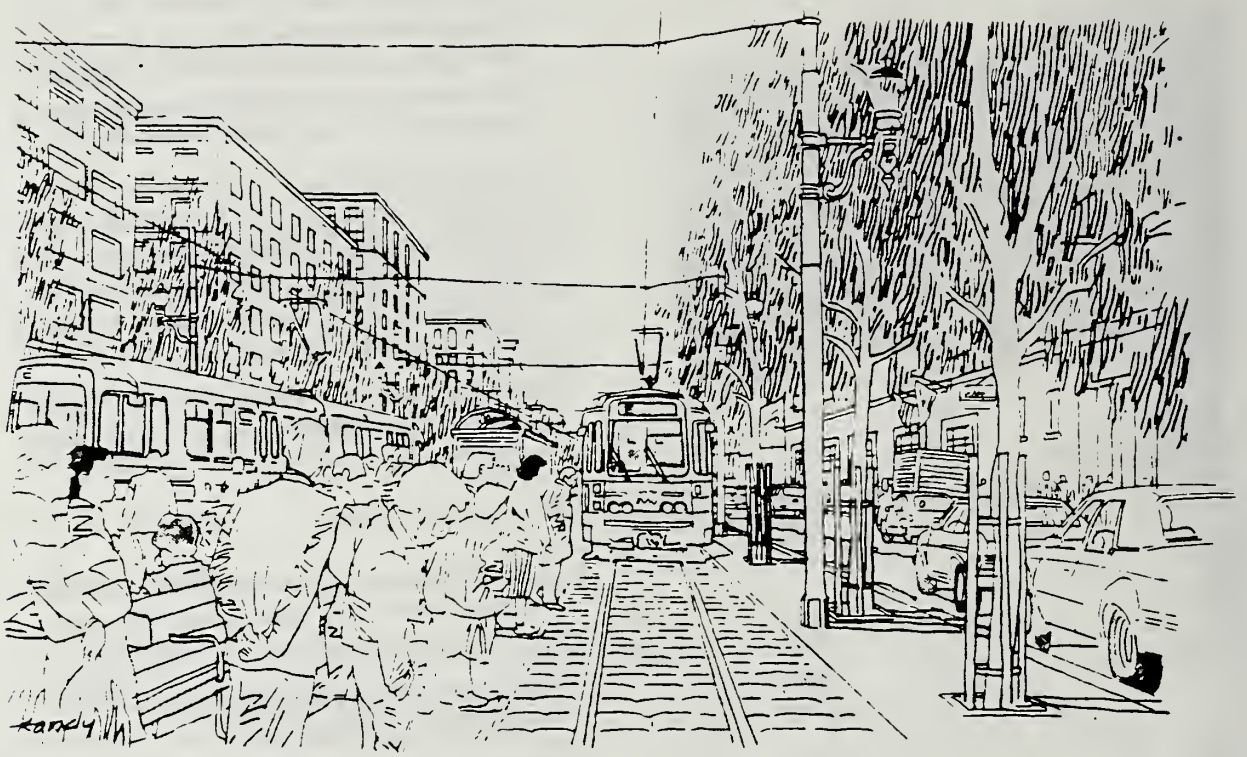
The Public Facilities Site

- Specific design guidelines for a facility or facilities on this site will be prepared as specific uses and programs for such are developed.

The MUNI Metro Yard (Metro East)

- Specific design guidelines for this facility will be prepared as the specific program for the facility is developed.

TRANSPORTATION



Transportation in Mission Bay will be multi-modal, providing for several public transit modes, private automobiles, bicycles and pedestrian travel. Within a system of existing and new streets and trails, ease of circulation will allow this to be a close-knit neighborhood. This section describes the system of streets, modes of transit, pathways and bikeways that will offer ready access to all the Mission Bay land uses. Methods of managing the use of the transportation systems also are discussed.

Street System

OBJECTIVE 28: ESTABLISH A STREET SYSTEM IN WHICH THE FUNCTION AND DESIGN OF EACH STREET IS CONSISTENT WITH THE CHARACTER AND USE OF ADJACENT LAND AND WITH THE GOAL OF PROVIDING EFFICIENT TRAFFIC FLOW.

Policy 1: Integrate the Mission Bay street system with the surrounding fabric of City streets.

Policy 2: Design the Mission Bay street system to the minimum scale necessary to provide required movement and access functions.

Policy 3: Establish an official truck route system along designated major and secondary thoroughfares to facilitate truck movements within and through Mission Bay.

Policy 4: Continue to provide adequate truck and rail access to businesses and maritime facilities in San Francisco.

Policy 5: Discourage non-local travel around residences, and non-recreational travel around parks and recreation areas in Mission Bay.

Policy 6: Remove the I-280 stub end and coordinate freeway interchanges from I-280 to achieve a balanced distribution of vehicular traffic on the City street system both within and surrounding the Mission Bay plan area.

The Mission Bay street system has been scaled and arranged to accommodate the many activities envisioned in the plan area. It will be a functional system of arterials and neighborhood streets consistent with the character of the Mission Bay land uses. Major arterials will be improved to better accommodate future traffic volumes and landscaped to add character to the Mission Bay streetscape. Neighborhood streets will be scaled to allow slower, quieter travel to and from Mission Bay residences and landscaped, adding character to these housing areas.

The Mission Bay street system is based on both the South of Market and Potrero street grids as shown in Figure 17. North of China Basin Channel, the large street and block pattern typical of the South of Market area is retained. This block pattern results in 825 foot long blocks which will be divided internally by mid-block passageways for pedestrians. Street widths here vary from 150-158 feet for King Street to 54-62 feet on Berry Street, east of Sixth Street.

Smaller blocks and narrower streets like those in Potrero Hill prevail south of the Channel. Stemming from Third Street are numerous streets varying from ~~81 to 72~~ 38 to 71 feet wide. These will serve traffic associated with the housing and smaller scale retail to be built here. The typical residential street will be 58 feet wide. Exceptions in this area are Owens, Third, Fourth, Sixteenth and China Basin Streets, all of which must serve as major arterials.

By utilizing both nearby street grids, Mission Bay will blend into its urban setting. The streets will allow the continuation of crosstown and regional traffic and will provide the smooth transition from arterials to local neighborhood serving streets. Three city-serving arterials go through Mission Bay: King Street, Third Street, and Sixteenth Street.

King Street will act as the southerly extension of the Embarcadero Parkway, with six lanes for vehicles and two tracks for the MUNI Metro Light Rail Vehicles in the median. Ramps to and from I-280 extend from its westerly end, directly linking Mission Bay with the San Francisco Peninsula.

Third Street in Mission Bay is a segment of a major arterial running over six miles, almost the length of the City. It will retain its existing width and will be improved and landscaped to serve vehicular, truck and transit traffic yet blend into this new neighborhood. Sixteenth Street is another city-serving arterial, linking Mission Bay to neighborhoods to the west. It will be improved to better accommodate future traffic volumes and increased pedestrian circulation.

Within the residential areas, street widths have been kept at a minimum and sidewalks at a maximum. This combination of meeting vehicular traffic demands but planning for more pedestrian circulation will create a healthier balance between transportation modes. All required vehicular movements will be allowed while pedestrian circulation is encouraged.

Most residential streets will have two traffic lanes and two parking lanes. Sidewalks in the housing areas will have a typical width of 10 feet. North of the Channel sidewalk widths will range from 15-17 feet on King Street to 9-12 feet on Berry Street. These reflect the two different roles the streets will play: public boulevard and residential street.

A primary reason for differentiating streets widths and character is to discourage non-local travel around residences. The narrower streets with fewer traffic lanes in the housing areas will discourage trucks and crosstown travellers seeking a speedy route to their destinations. Streetscape design, including trees, plantings and street furniture such as benches, will further indicate streets for heavy pedestrian use and transit versus streets for more intimate neighborhood interaction.

Non-recreational travel will be discouraged around parks and recreation areas in Mission Bay. Especially along China Basin Channel and next to internal neighborhood parks, smaller streets will be built to function primarily as access routes to local parks and housing. Exceptions will include the Third Street arterial traffic parallel to the Mission Point Park and light industrial-maritime related traffic on China Basin and Mission Rock Streets passing Mission Bay Green. These arterials perform broader citywide roles and will

It is contemplated that by approximately the end of 1997, CalTrain will be extended to a Downtown terminal. An underground right-of-way for CalTrain under King Street is preserved for this extension. Every effort shall be made to minimize disruption of businesses along King Street during construction of the extension.

Policy 3: Provide an extension of MUNI Metro into Mission Bay and the opportunity for future extensions to the south of Mission Bay.

Policy 4: Establish a separate right-of-way for the MUNI Metro light rail vehicles.

Policy 5: Create a transit center within Mission Bay for convenient local and regional transit system transfers.

Public transit will make a major contribution to the economic vitality and neighborhood quality of Mission Bay. Multiple modes, including MUNI bus, MUNI Metro and CalTrain, will be available for residents, workers and visitors as Figure 17 indicates. Several MUNI bus lines will be extended into and through the site, serving Mission Bay and completing links between downtown and other areas. Implementation of these bus routes will contribute substantially to completing the bus network in this portion of the City. Bus stops in Mission Bay will be convenient to commuters who live and/or work here, enhancing Mission Bay as a housing or workplace location.

The MUNI Metro is to continue from the Embarcadero onto King Street in its own center median, providing a direct grade-separated link to Downtown. If CalTrain is extended to or toward Downtown underground, there may be an underground station under King Street, at Third or Fourth Streets with an aboveground link to MUNI Metro and buses. Four MUNI Metro station stops are planned within Mission Bay: on King Street near Fourth and near Sixth Streets; west of the intersection of Owens and Channel Streets ~~(near the CalTrain station if it is relocated at Seventh and Channel Streets)~~ and south of Sixteenth Street between Owens and Seventh Streets. The station at Owens and Channel Streets will be a multi-modal transit center where MUNI buses, the MUNI Metro ~~and, potentially, the CalTrain all~~ stop. The ~~station~~ center will include ~~train~~ and bus loading areas ~~and a MUNI Metro plaza. At this lively center, travellers will be able to swiftly transfer from one mode to another or complete convenience shopping between rides. The landscaped pedestrian plaza will be a neighborhood amenity.~~

~~Investigations are underway regarding the feasibility of extending the CalTrain service. An underground right-of-way for the CalTrain under King Street is preserved for the extension of CalTrain to the Downtown area.~~

CalTrain service to the ~~Owens and Channel~~ King Street station will provide regional transit service from the San Francisco peninsula transit corridors. All of these transit stops will be within easy walking distance for most residents and workers in Mission Bay.

Bicycle Circulation

OBJECTIVE 31: PROVIDE FOR THE SAFE AND CONVENIENT USE OF THE BICYCLE AS A MEANS OF TRANSPORTATION AND RECREATION.

Policy 1: Establish bicycle routes where appropriate within the Mission Bay area.

Policy 2: Provide secure and convenient parking facilities for bicycles at major commercial and residential developments, at transit terminals, and at major open space areas.

To assist in achieving an increasingly progressive modal split in Mission Bay travel patterns, space for bicycles has been provided in key Mission Bay streets (see Figure 17). Streets which have wider lanes and are intended to encourage bicycle commuting include Sixteenth, China Basin, Berry, Third and Fourth Streets. Recreational bicycle activities will take place on the quieter streets near housing or recreation. There will be secure and convenient bicycle parking facilities at major commercial and residential developments, at transit stations and at major public parks and open space.

Parking and Loading

OBJECTIVE 32: PROVIDE ONLY THE AMOUNT OF PARKING AND LOADING NECESSARY TO SERVE MISSION BAY WITHOUT ADVERSELY AFFECTING LIVABILITY OR ENCOURAGING EXCESSIVE RELIANCE ON THE AUTOMOBILE.

Policy 1: Provide adequate off-street parking spaces for residential development.

Policy 2: Do not provide long-term parking at Mission Bay for downtown commuters.

Policy 3: Provide off-street loading and parking spaces for delivery and service vehicles.

Policy 4: Encourage the multiple use of parking facilities to maximize their ability to serve daytime, evening and weekend populations.

Mission Bay will provide on- and off-street parking spaces that are convenient for residents and workers. As a general rule, there will be one off-street parking space in residential structures for each housing unit. Exceptions may be appropriate for certain types of housing such as elderly housing when it can be demonstrated that auto usage will be lower. On-street parking will also be available in the neighborhood, for the additional automobiles of visitors or residents.

Commuter trips to Mission Bay workplaces are expected to be made on multiple modes of transportation. At build-out commute trips by private automobiles are expected to be only about one third of total commute trips. Therefore, only one parking space per 1,000 gross square feet of office and commercial-light industrial space (a total of 4,800 spaces for office, 900 spaces for commercial-light industrial) ~~will~~ may be provided. Parking structures on King Street may be used as parking for major public assembly events, if needed. Similarly, parking in other structures around the site may be used for multiple uses. During rush hours, the parking lanes on King Street may become travel lanes in the peak direction flows. Long-term parking for downtown commuters will not be provided in Mission Bay.

Off-street parking for the non-residential uses on Long Bridge, Third and Sixteenth Streets is required at a ratio of about one space per ~~857~~ 850 square feet of gross floor area. The collective provision and joint use of required parking could be achieved through the development of 240 spaces at Mariposa Street, ~~and~~ 400 spaces at Sixteenth Street, and about 225 spaces along Third and Long Bridge streets.

Most loading, delivery and service vehicles for office and commercial-light industrial uses will utilize off-street truck loading areas within such buildings. For the commercial-light industrial uses on Owens Street, truck docks for loading, delivery and service will occur behind or at the sides of buildings. Retail loading and delivery will be conducted in parking lane zones designated for these activities along Long Bridge and Third Streets. Those parking spaces will have restricted hours for these activities. Thus, retail on-street parking spaces will serve dual purposes for freight functions and shopper parking.

Pedestrian Circulation

OBJECTIVE 33: PROVIDE FOR CONVENIENT, SAFE AND PLEASANT PEDESTRIAN CIRCULATION.

Policy 1: Give priority to pedestrian circulation in Mission Bay.

Policy 2: Develop an extensive pedestrian network in Mission Bay which will permit future connection with pedestrian systems that may be developed in surrounding areas.

Policy 3: Provide a pedestrian-oriented retail and community service street that connects with Mission Bay thoroughfares.

Policy 4: Provide sidewalks of sufficient width to facilitate pedestrian use.

Policy 5: Provide for pedestrian circulation and open space use in public rights-of-way not required for vehicular traffic.

Policy 6: Provide handicapped access in pedestrian areas.

Policy 7: Recognize the importance of the pedestrian environment in the street level design of buildings.

Policy 8: Buffer pedestrians from heavy truck, transit and automobile traffic.

Policy 9: Provide a variety of street amenities to ensure quality street level environments.

Policy 10: Expand and enhance pedestrian access to the edge of the Bay and to China Basin Channel.

Policy 11: Develop mid-block lanes so that they can be used for outdoor recreation and as pedestrian amenities.

Policy 12: Create a network of pedestrian paths which connect important Mission Bay origins and destinations.

To encourage more pedestrian travel, there is to be an extensive pedestrian network throughout Mission Bay. Comprised of sidewalks, jogging trails, lanes, mid-block passageways, and open space corridors, this network will provide convenient, safe and direct routes to most Mission Bay locations. This network is to include a pedestrian bridge over the Channel at Fifth Street ~~elevated for sailboat access and therefore offering unusual views.~~ All of these pedestrian routes will permit future connections with surrounding neighborhoods. To the greatest extent possible, pedestrian travel in Mission Bay will be buffered from transit and auto traffic.

The area within neighborhood parks and major public open spaces will be designed exclusively for pedestrian use. Access for handicapped persons will be provided in all major public open spaces.

Sidewalk widths, averaging 10 feet in residential ~~acres~~ areas plus a 3 foot setback zone, have been established to accommodate anticipated pedestrian volumes and other design considerations. They will be planted with street trees and lined with housing, retail and office activities to create a pleasant environment for walking. Street furniture and signage should further contribute to street level ambiance, comfort and interest.

Facade treatment and orientation of buildings and streetscape design in Mission Bay are intended to create a pleasant and functional pedestrian environment. Building details such as front stairs and bay windows will add interest for pedestrians.

Long Bridge Street will be an animated pedestrian environment with many storefronts and several community facilities. Long Bridge Plaza is to be a large pedestrian plaza and gathering place for informal daytime relaxation and more formal evening events in the adjacent cultural center.

Landscaped jogging/walking paths, 28 feet in width, parallel Mission Bay sidewalks ~~on certain streets forming~~ a two-mile long path system that roughly forms the circumference of the neighborhood. The jogging paths connect with major public open space.

Mid-block lanes and passageways will offer routes through large blocks. Lanes will be used at times by vehicles approaching garage entrances but will basically be quiet small streets between residential buildings. In the larger office blocks north of China Basin Channel, mid-block passageways edged with retail shops and open to the sky will provide access through the blocks, making the trip to the Channel's edge from Townsend Street for lunch, for example, both enjoyable and direct.

The pedestrian network in Mission Bay will link major public places such as community and cultural facilities, recreation centers and parks. A person walking through Mission Bay will encounter a variety of structures, activities and landscapes. Paths will connect important gathering places and open space with the heart of the neighborhood housing. This housing will have direct access to MUNI Metro transit stations via an open space corridor. Minor lanes and side streets complement the sidewalk system on larger streets; they can be used for informal outdoor recreation and pedestrian access.

Transportation ~~Systems~~ Management

OBJECTIVE 34: MEET NEEDS OF MISSION BAY RESIDENTS, WORKING POPULATION AND VISITORS FOR SAFE, CONVENIENT AND INEXPENSIVE TRAVEL.

Policy 1: Plan for transit as a primary mode of travel to, within and from Mission Bay.

Policy 2: Seek to achieve the same modal split ratio that applies in the Downtown vicinity. Limit long-term parking for Mission Bay workers within Mission Bay.

Policy 3: Develop a coordinated commute alternative program for Mission Bay employees.

Policy 4: Coordinate Mission Bay regional and local transportation systems planning.

Policy 5: Meet transportation needs of the physically disabled and elderly, consistent with citywide standards.

A key objective in the Mission Bay Plan is to accommodate increased travel to, from and within Mission Bay without adverse impact on the City's transportation system. A Transportation ~~Systems~~ Management Program will be implemented to cause commute travel modes to progress toward increasing use of public transit and ridesharing. Resultant buildout commute patterns in Mission Bay should be similar to those throughout the greater Downtown area. (See Chapter 4)

An increasingly progressive modal shift by Mission Bay employees for commute travel will be a high priority. The use of single-occupant private vehicles will be reduced, in favor of public transit and private ridesharing. Upon buildout of Mission Bay, at least 53% of employees are expected to commute by public transit and at least 15% by private rideshare arrangements, with at least 1.2 average persons per private commute vehicle. During commute peak periods at buildout, higher goals will be targeted including 68% public transit, 18% private ridesharing and 1.4 average persons per private commute vehicle. In addition, the program will target an increasingly progressive temporal commute share such that at least 38% of employees arrive and depart their jobs outside the morning and afternoon peak periods at Mission Bay buildout.

The program will target commute modal shares for four-year periods, taking into consideration existing and anticipated public transit accessibility, existing and anticipated employment population and mix, parking supply, achievement of prior targets and other pertinent factors. Consideration will be given to encouraging and facilitating increased use of other transportation modes such as bicycles and walking as well as managing commercial parking demand and supply. Flextime and staggered work hour programs will also be promoted and facilitated.

The stub end of I-280 which extends above three blocks of Mission Bay north of the Channel will be removed and new I-280 ramps onto King Street instead of Berry Street will be built. At this time, an effective redistribution of vehicular traffic will be implemented on Mission Bay surface streets. This and the other planned street system improvements described earlier will facilitate commuting patterns throughout the plan area.

Consistent with citywide standards, the transportation needs of the physically disabled and elderly will be met through improvements to vehicles, transit facilities, sidewalk curbcuts, and all public places.

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Street Design Guidelines

1. GENERAL INTENT

The circulation system is intended to orient and guide movement in an orderly, sequential manner. This can be done in part by creating a dominant visual theme for all major streets which will provide continuity and enhance and enrich the Mission Bay experience. Dominant themes are recommended for King, Third, Fourth, Sixteenth, Mariposa and Owens Streets. Visual themes will be carried out through a combination of street trees, landscaping, street furniture and sidewalk width and character. A strong and lasting image created on major streets is important for continuity as well as for creating a memorable experience. Temporary names have been given to all the streets for planning convenience but names reminiscent of the historic and geographic background of Mission Bay are also suggested (see Figure 20).

2. GUIDELINES

2.1 Street Tree Planting

Along major arterials such as King, Third, Fourth and Sixteenth Street, tree varieties should be consistent and planted in a formal manner. To encourage diversity, tree selections on neighborhood streets should vary from block to block but be consistent within the block.

2.2 Sidewalks

Sidewalks typically should be 10 feet wide along residential streets and 6 feet wide along mid-block residential lanes. Outside the public right-of-way on residential streets and in the 3 foot setback zone, architectural and landscape features are permitted up to three feet into the setback area on streets and up to 1.5 feet on mid-block lanes. Six inch encroachments are allowed in all cases for sills, frames, belt courses and similar architectural embellishments.

Sidewalks should conform to the standard code requirements. However, use of a distinctive brush finish, to be used in place of the standard smooth finish, should be considered for use throughout Mission Bay. Most sidewalks should begin at the curb. Among exceptions will be the east side of Owens Street and north side of Sixteenth Street where the 28 foot, meandering park pathway will include a sidewalk. Sidewalk elevations should be maintained at driveway crossings.

2.3 Access for the Physically Disabled

All sidewalks should allow for handicap access and should comply with City codes. At mid-block crossings, dropped curbs with bollards are encouraged to facilitate handicapped and other pedestrian users. Refer to the 'Downtown Plan', Pedestrian Improvements Standards and Guidelines for further treatment of crosswalks.

2.4 Curb Bulbs

Curb bulbs for bus loading should be considered as a design feature of certain intersections. Streets with wider lanes which are intended to ease the movement of transit vehicles are the most compatible with the concept of bus loading zones at curb bulbs.

2.5 Utility Covers

In general, utility covers should be located in a four foot strip adjacent to the curb. In special paving areas all utility covers within the street right-of-way should be of a design which visually relates to the paving design.

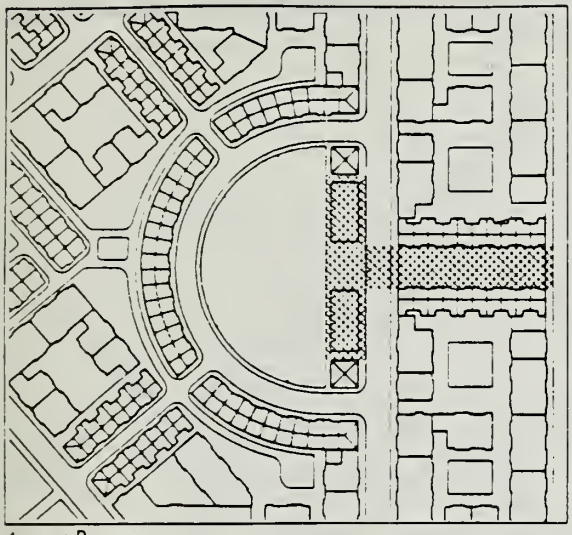
2.6 Accent Paving

Special accent paving should occur at all major pedestrian crossings along the open space spine. It should be used elsewhere only within building entries especially along the neighborhood retail street and not within the sidewalk area. Where plazas extend to the street edge an adequate paving transition should occur with the adjacent sidewalk paving.

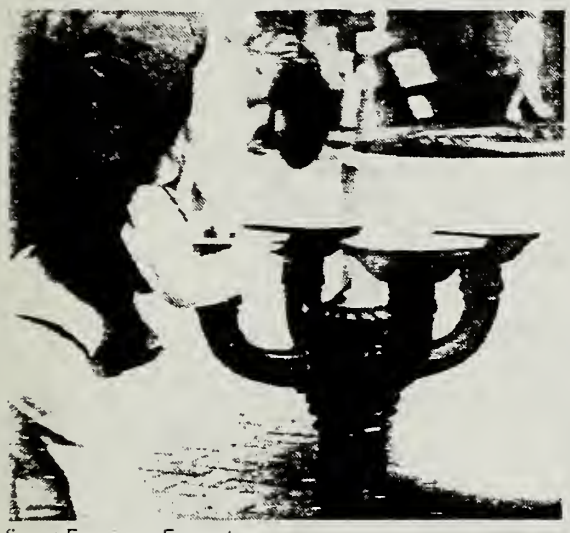
Major crosswalks should incorporate special paving to facilitate the pedestrian use. All other crosswalks should be striped according to City code requirements. Refer to the 'Downtown Plan', Pedestrian Improvement Standards and Guidelines for further paving treatment descriptions.

2.7 Street Furniture

Appropriate street furniture within the street right-of-way includes bollards, trash receptacles,



Accent Paving



Street Furniture Example

newsstands, street signs, bus shelters, some dining furniture from streetside cafes, street lighting and street tree cut outs. Other street furniture such as planter pots and walls should be located at building entrances and relate to the architectural context.

2.8 Street Corners

Street corners should not be cluttered with excess furniture such as too many newsstands and trash receptacles. Location of receptacles and newsstands should facilitate and not interfere with pedestrian use. Refer to the 'Downtown Plan', Pedestrian Improvement Standards and Guidelines for more specific treatment at corners.

2.9 Bus Shelters

Bus shelters will be located at bus stops according to City Standards. The standard shelters used throughout the City should be used except at the major intermodal transit center and major bus transfer points. There, larger, specially designed shelters should be used.

2.10 Bollards

Bollards are encouraged at all major pedestrian crossings, especially when the curb will be dropped to grade to allow access for the physically disabled. Design of bollards should relate to the architectural context of the surrounding buildings. Removable bollards should be used in pedestrian lanes and rights-of-way to prohibit vehicular use yet allow for emergency vehicle access.

2.11 Street Signage

Signage should be limited to only those signs necessary for traffic flow, parking and service access. No building identification signage should be located within the street right-of-way.

2.12 Street Lighting

Street lighting meeting City standards should be used. Poles more distinctive than the standard smooth shaft cobra headed pole should be considered. Location of poles should be designed to work with the street tree spacing. The pole locations should be integrated with the paving design where possible. Special lighting fixtures should be provided in the open space network.

2.13 Bike Routes

Bike routes should be signed but not striped on streets designated as bike routes. These streets include China Basin Street, Owens Street, Channel Street, Third Street, Fourth Street and Sixteenth Street.

2.14 Utilities

The location and character of utilities are to meet City Standards. All should be underground with the exception of the MUNI overhead electric line which has an 18 foot height limit. To the extent possible, MUNI overhead wires should be supported by eye bolts attached to other utility poles or to buildings rather than independent poles.

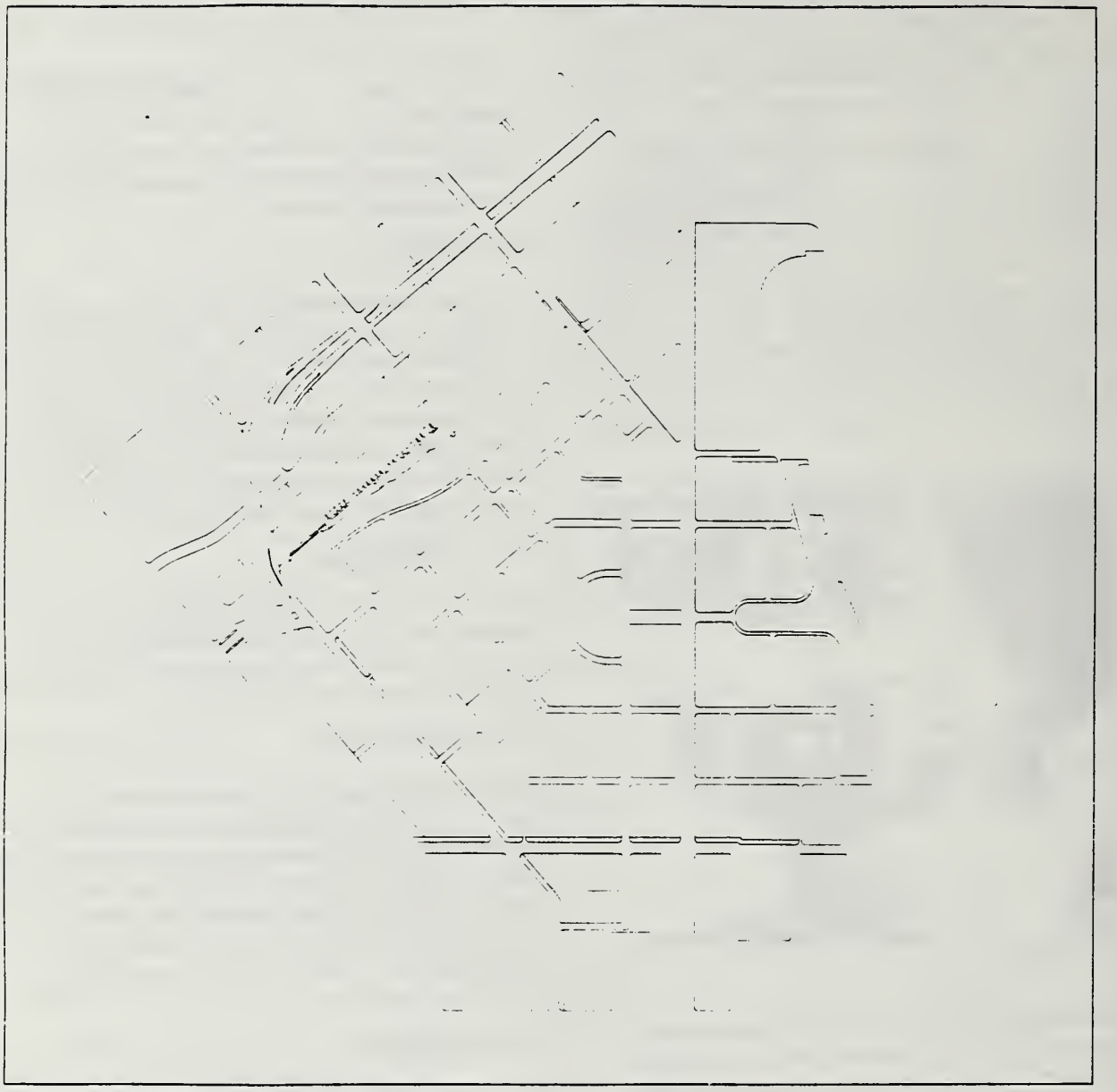


Figure 18: Street Tree Planting Plan

Formal - Thoroughfare Uniform

Formal - Residential Uniform

Formal - Residential Mixed

Informal - Mixed

Informal - Park Pathway

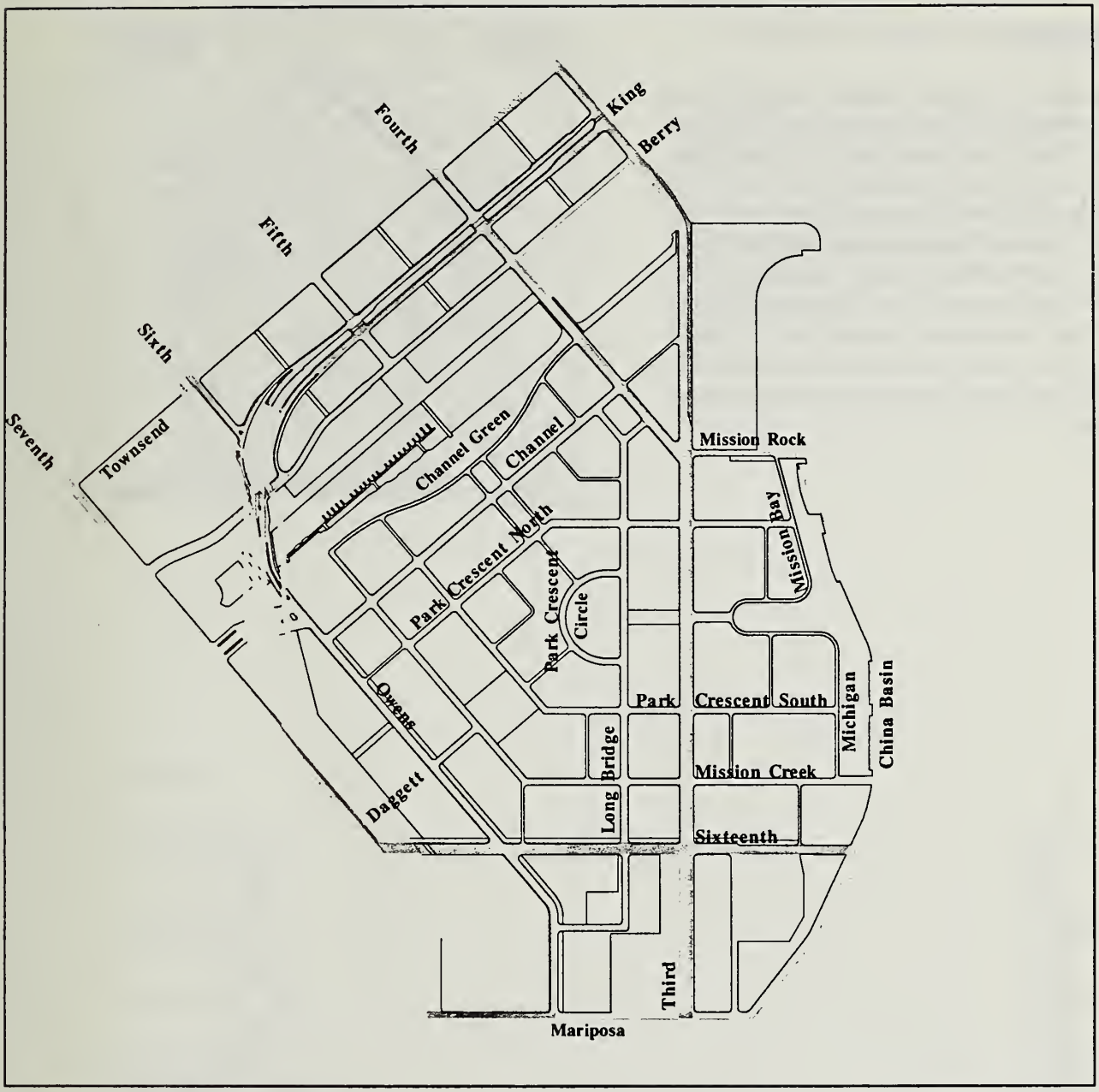


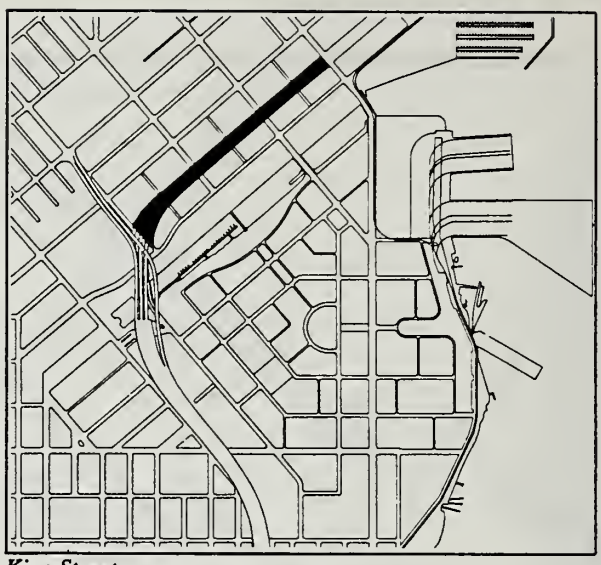
Figure 19: Mission Bay Streets

Primary Streets

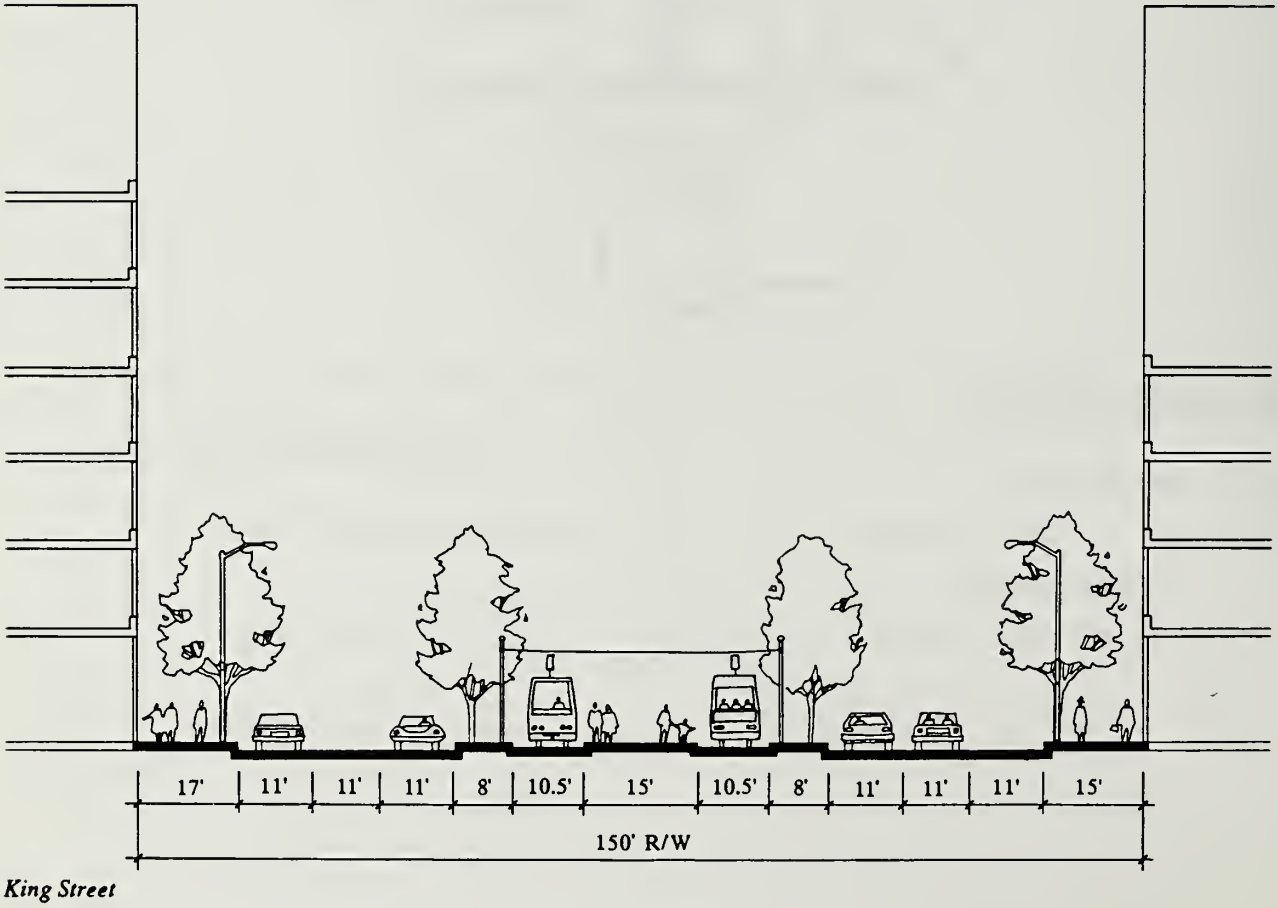
Secondary Streets

3. King Street

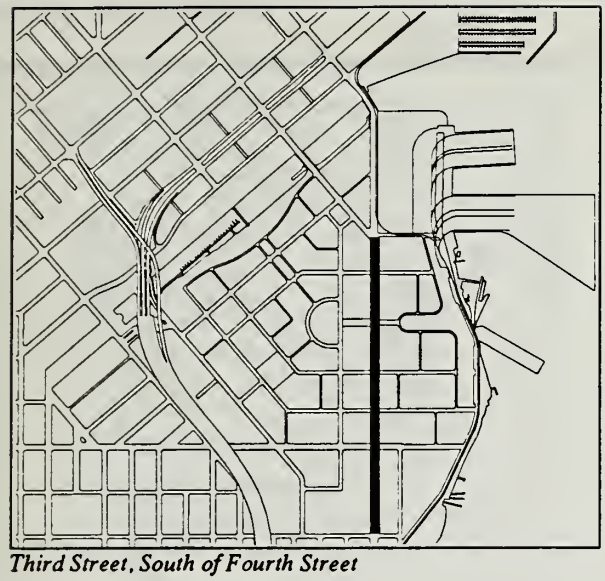
King Street is a major arterial with a 150 to 158 foot wide right-of-way for the three blocks between Sixth and Third Streets. New I-280 ramps will be installed between Fifth and Sixth Streets on King Street. MUNI Metro trains will continue from the Embarcadero down King Street in the center median. Large deciduous trees should be planted in a formal manner along King Street with a spacing not greater than 30 feet on center. The center median should be planted with a vertical tree that will visually break up this very wide street.



King Street



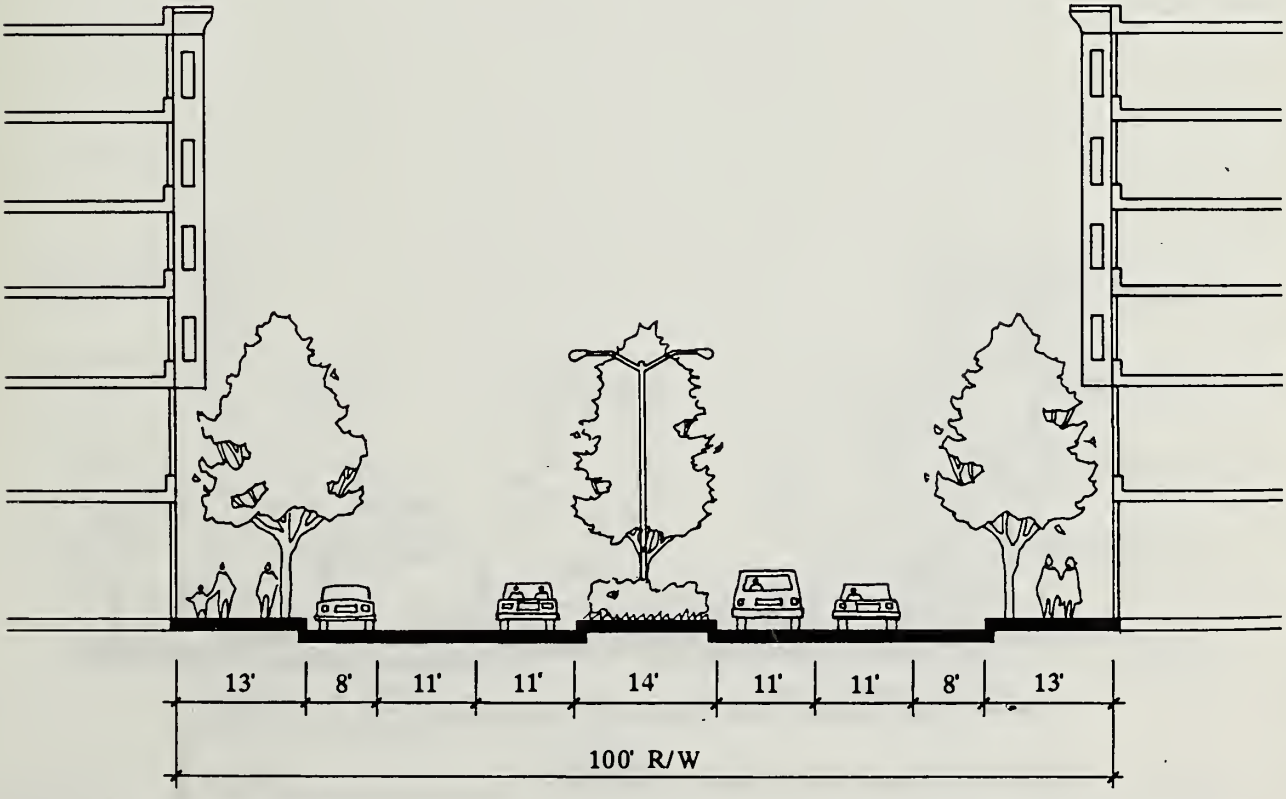
King Street



Third Street, South of Fourth Street

4. Third Street, South of Fourth Street

Third Street should be a grand boulevard that is planted at its edges with a formal, deciduous canopy tree. The trees should stop at Long Bridge Plaza to allow the open space spine to read visually and spatially through both sides of the street. The median south of the intersection of Third and Fourth Streets should be planted with low growing ground cover and trees to visually divide this wide street.

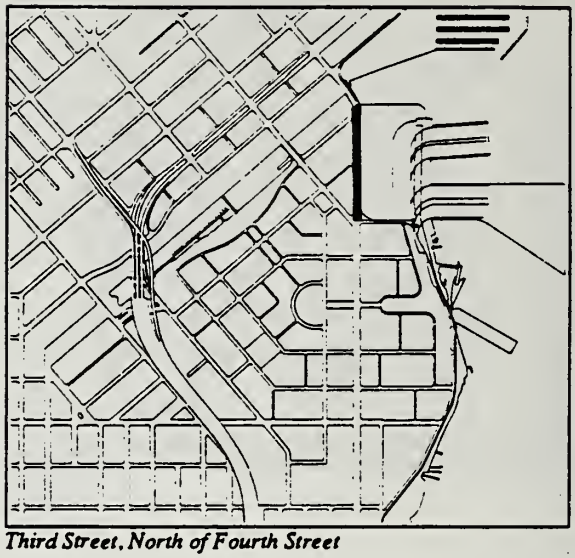


Third Street, South of Fourth Street

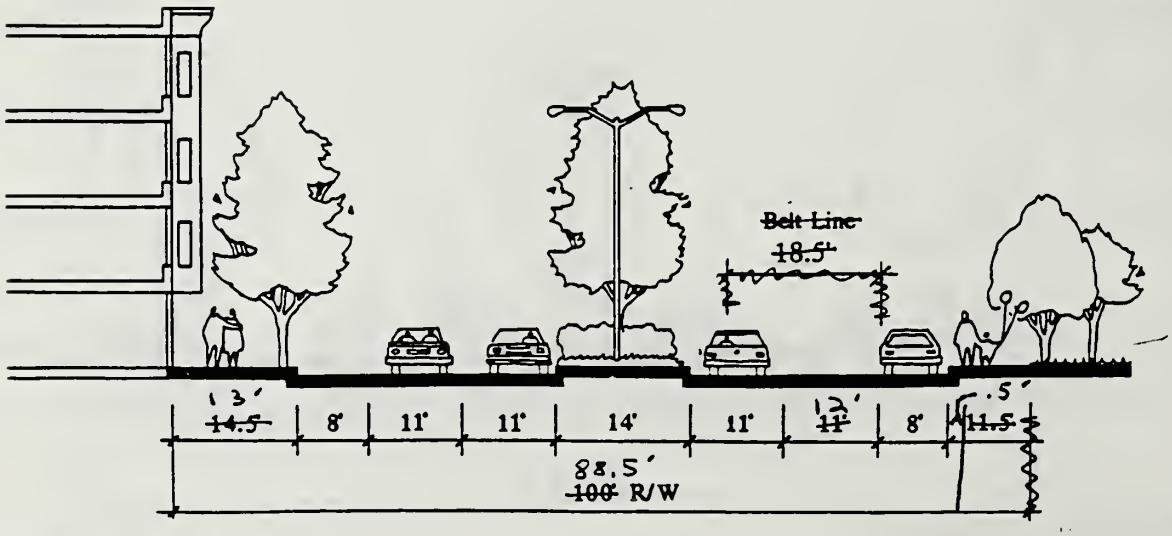
5. Third Street, North of Fourth Street

Third Street north of Fourth Street should be continued as a grand boulevard. The west side of Third Street should be planted with the same species of tree used south of Fourth Street. The median should be planted with ground cover and trees. The ~~edge along Mission Point Park~~ should continue using the street tree but make the transition to a more informal spacing arrangement compatible with the natural shoreline vegetation. ~~The Belt Railroad right-of-way may be located in the street on the east side of Third Street.~~

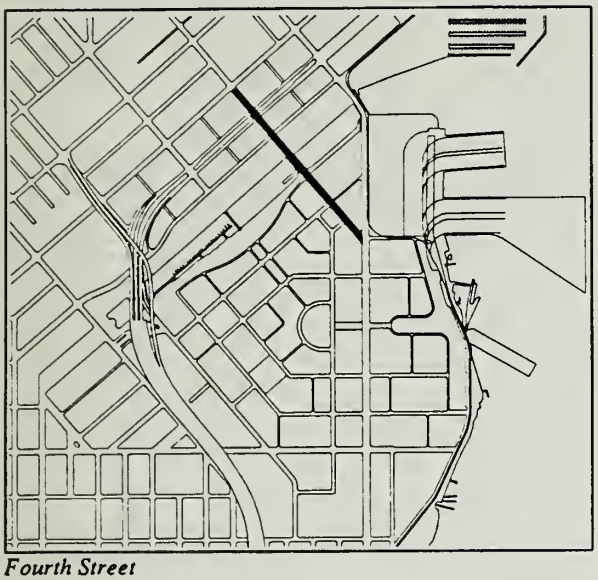
Mission Bay Wetlands Park edge



Third Street, North of Fourth Street



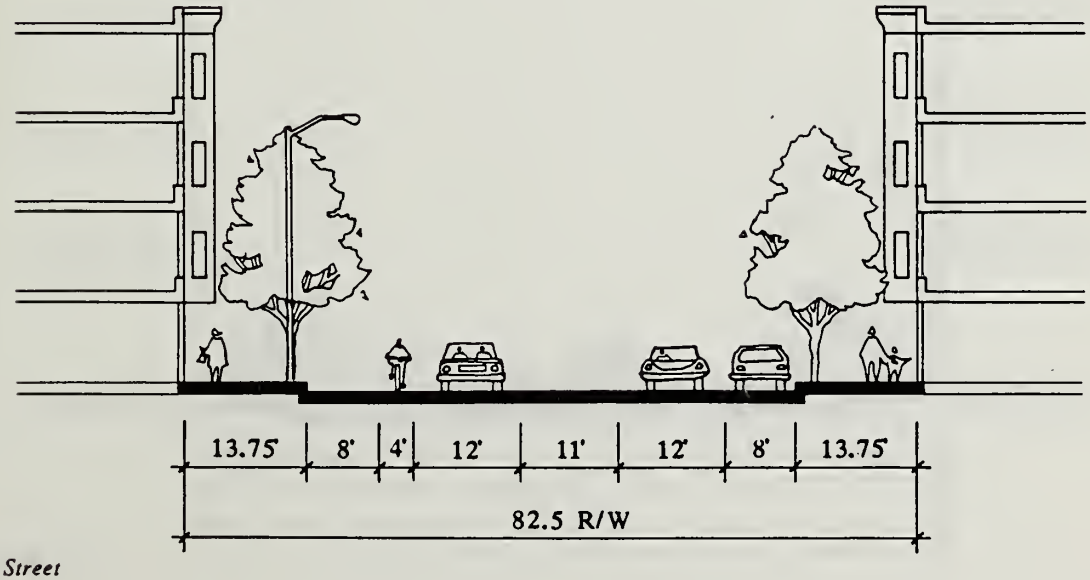
Third Street, North of Fourth Street



Fourth Street

6. Fourth Street

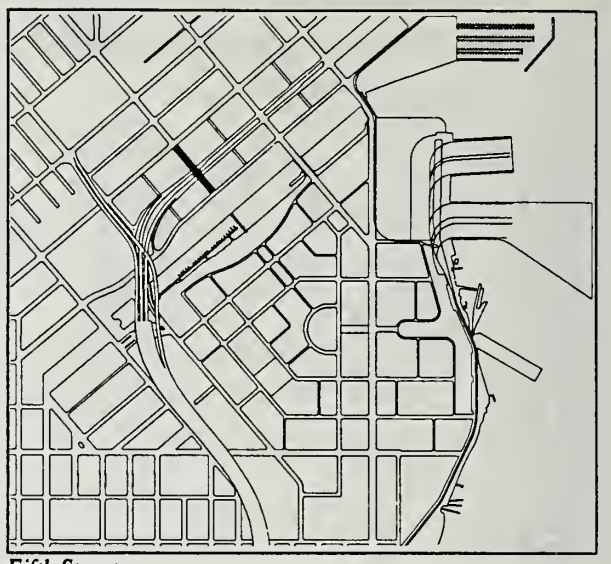
Since Fourth Street merges into Third Street it should be considered an extension of Third Street by continuing the use of the same street tree. The formally spaced street tree planting should continue north to Townsend Street.



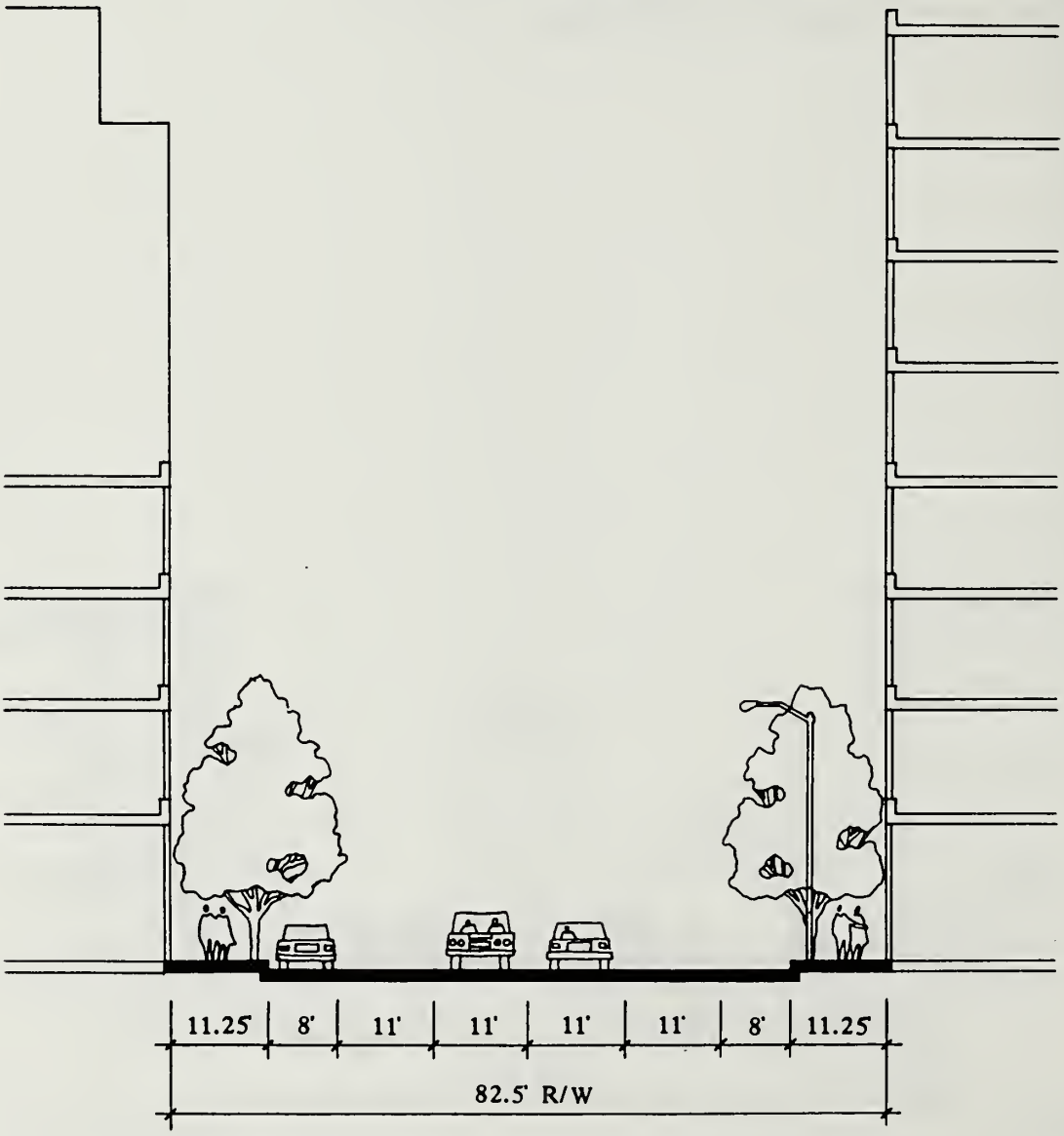
Fourth Street

7. Fifth Street

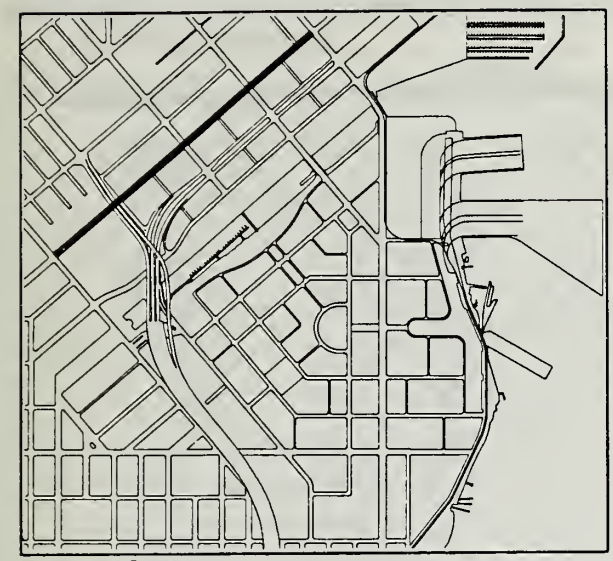
Fifth Street north of the Channel is intended as a major view corridor to the Channel from the South of Market area. The street tree planting is uniform and spaced in a formal geometry to reinforce the view corridor. A focal point should be developed at the Channel end of the street axis that can serve as a visual and actual destination. All intersections on this corridor should reflect the importance of Fifth Street as a pedestrian corridor to the Channel with special paving accent. From Townsend and Berry Streets the right-of-way will be an extension of the existing 82.5 right-of-way on Fifth Street. South of Berry Street it will become a plaza (see Open Space Guidelines).



Fifth Street



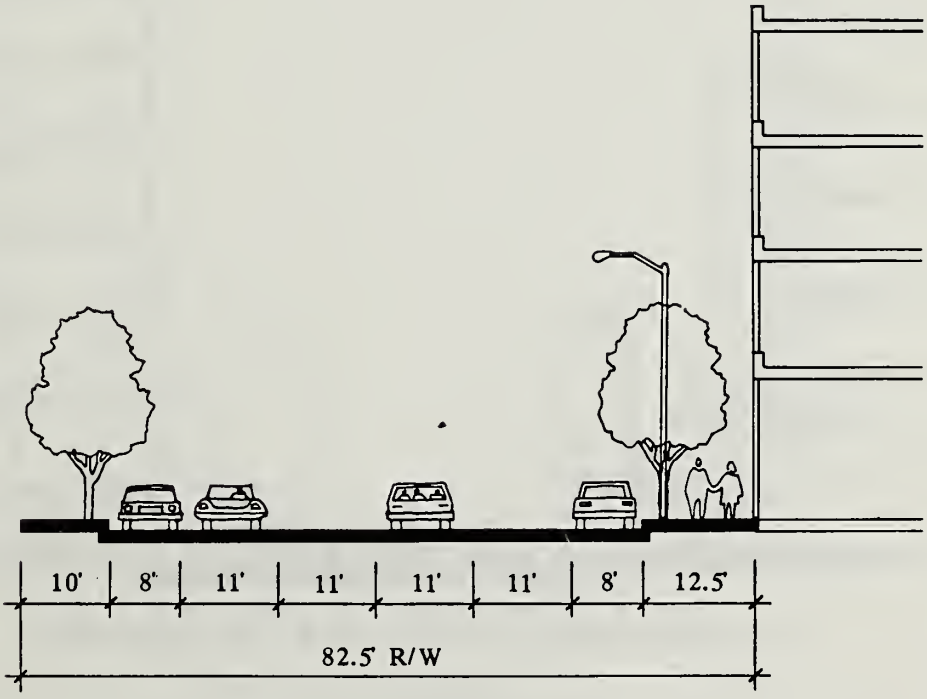
Fifth Street



Townsend Street

8. Townsend Street

The intent along Townsend Street is to integrate the edge of Mission Bay with the South Beach and South of Market areas. Acacia longifolia has been established as a recurring street tree along Townsend in the South Beach area so it should be repeated at this end of Townsend Street.

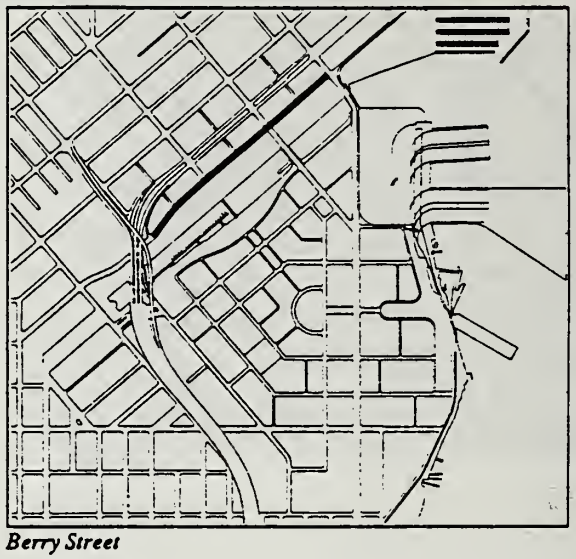


Townsend Street

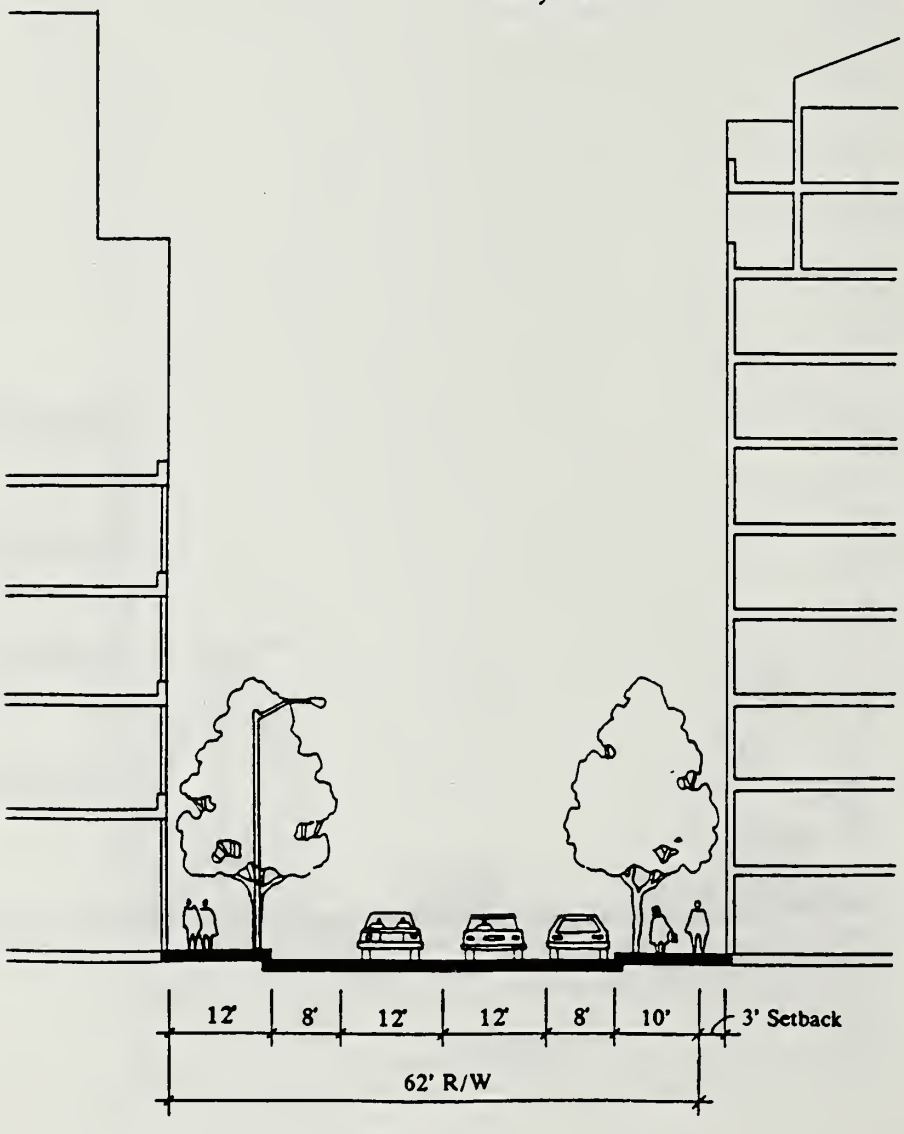
9. Berry Street

This section includes Berry Street between Third and Sixth Streets. The landscape along Berry Street should be the same as Channel Street. The trees should be spaced in a formal pattern and further apart than 25 feet due to the narrowness of this street and the height of the buildings. This will reduce the canyon effect that could occur because of the taller buildings planned along this street.

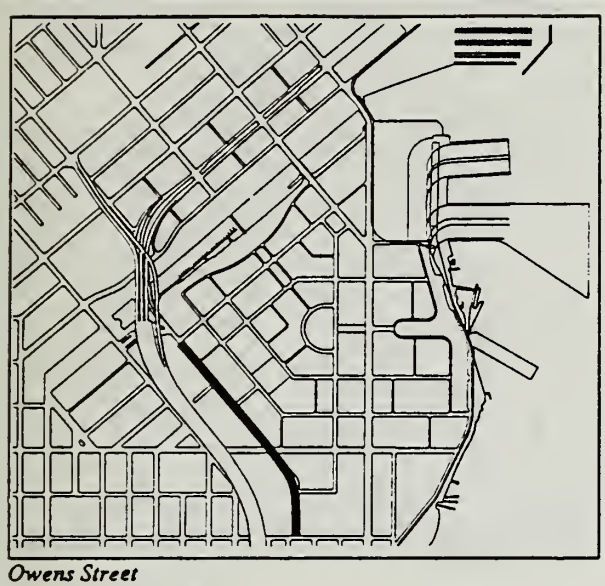
Berry Street narrows to 54' feet as it nears Sixth Street. Berry Street between Sixth and Seventh Streets may be 84 feet wide.



Berry Street



Berry Street

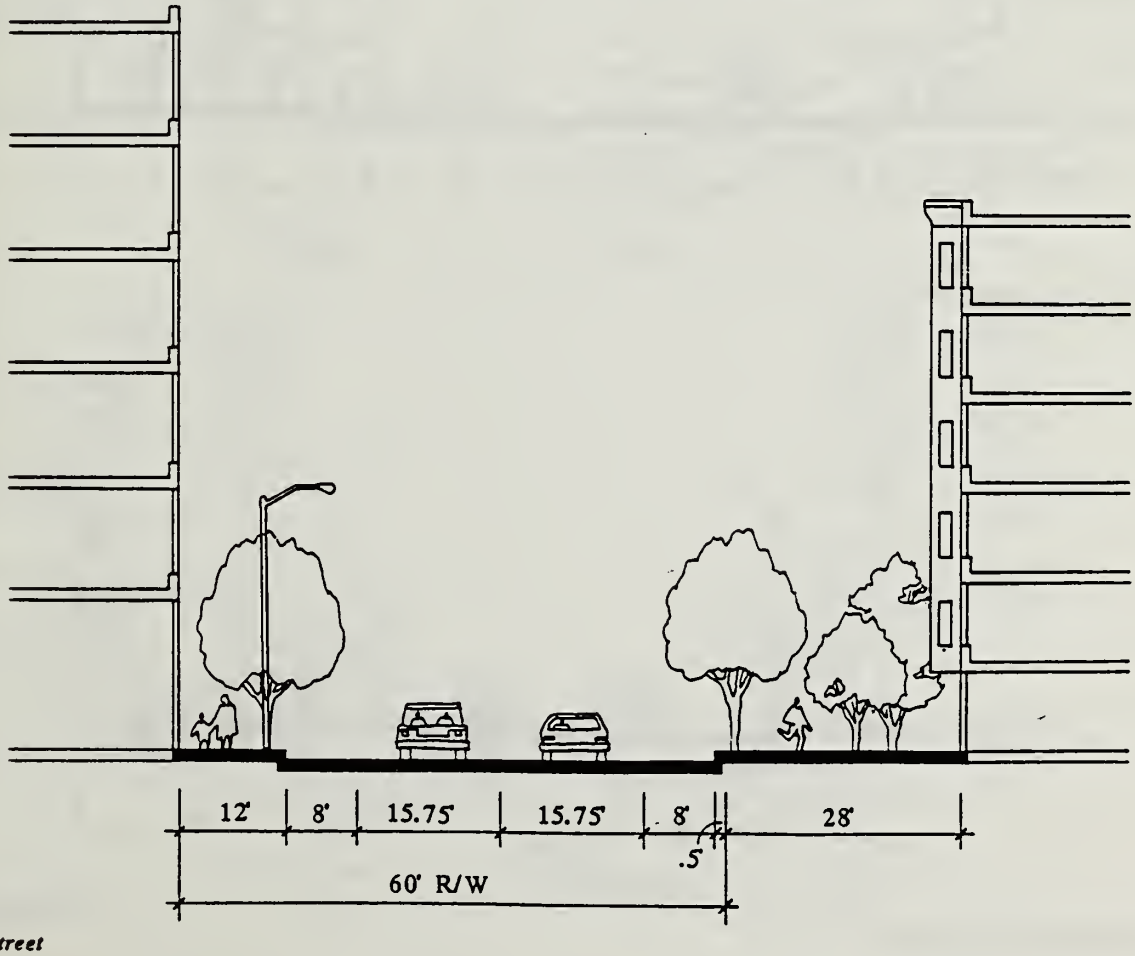


Owens Street

10. Owens Street

Owens Street will function as an open space buffer between commercial-light industrial uses and housing. Each entrance to a light industrial building should be opposite the terminus of a neighborhood cross street. The residential side of the street will have a 28 foot landscaped park pathway with a meandering jogging path/sidewalk and seating areas (see Open Space Design Guidelines, Park Pathway). On the commercial-light industrial edge, small street trees should occur in the sidewalk corridor. The variation in the street trees used will create a different pedestrian character for each side of Owens Street.

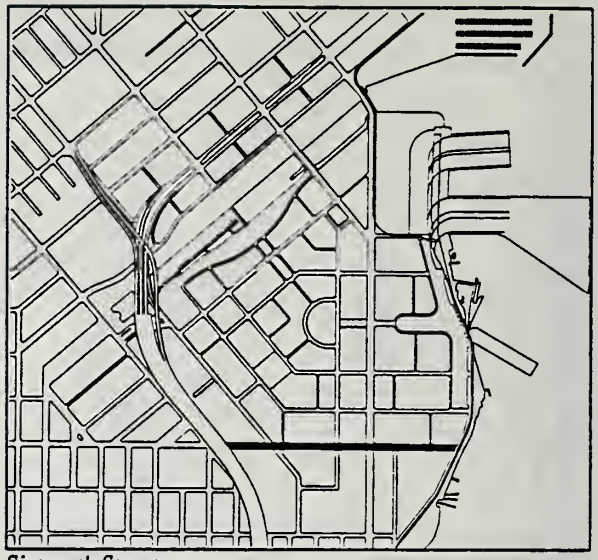
P The Owens Street Bridge will have two 13-foot traffic lanes, two 6-foot shoulders, two 12-foot sidewalks, and two 1-foot railings for a total of 64 feet in width.



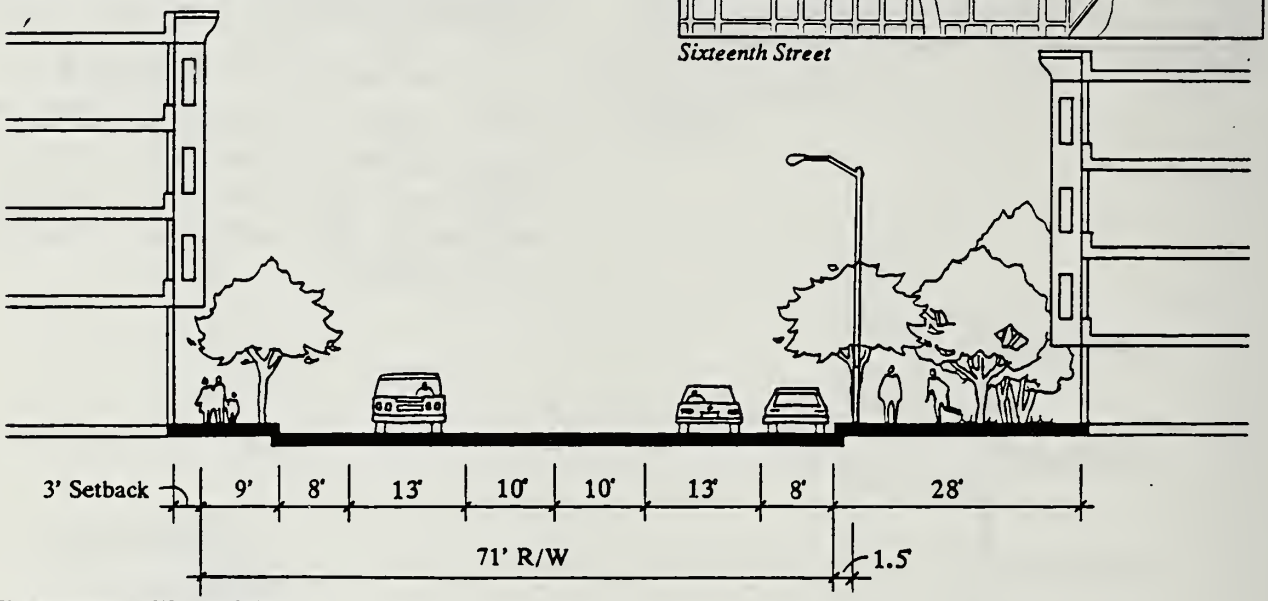
Owens Street

11. Sixteenth Street

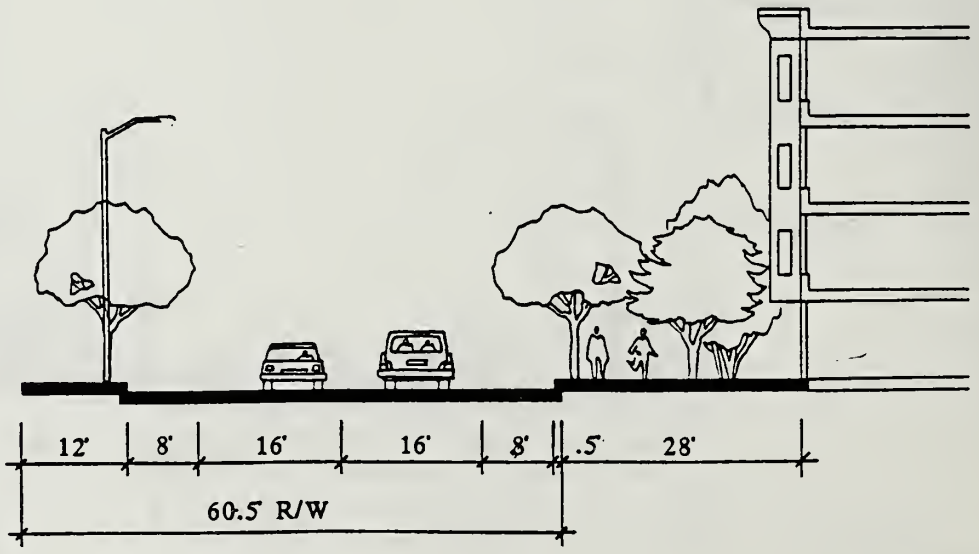
Sixteenth Street will connect Mission Bay to the Potrero Hill neighborhood. Its landscape treatment should provide a transition to Mission Bay from this existing neighborhood. The same setback and planting scheme for Owens Street should be repeated on Sixteenth Street, with the landscape/recreational edge strip on the north side of the street. There may be a freight track in Sixteenth Street, if required, to provide access to Port Piers 48-54 and South.



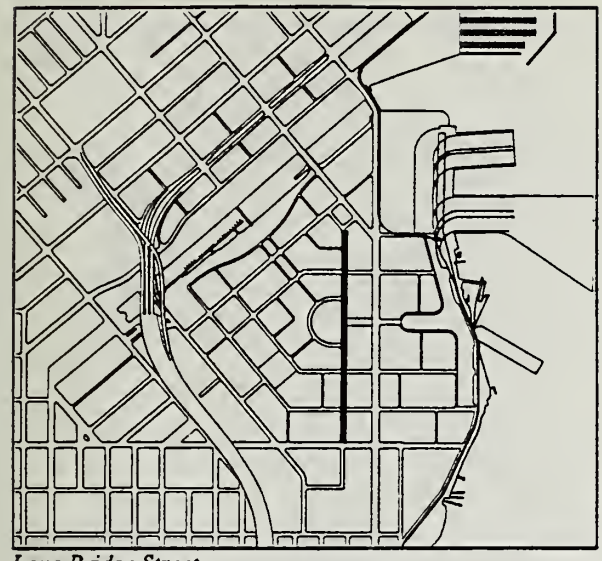
Sixteenth Street



Sixteenth Street West of Illinois



Sixteenth Street East of Illinois



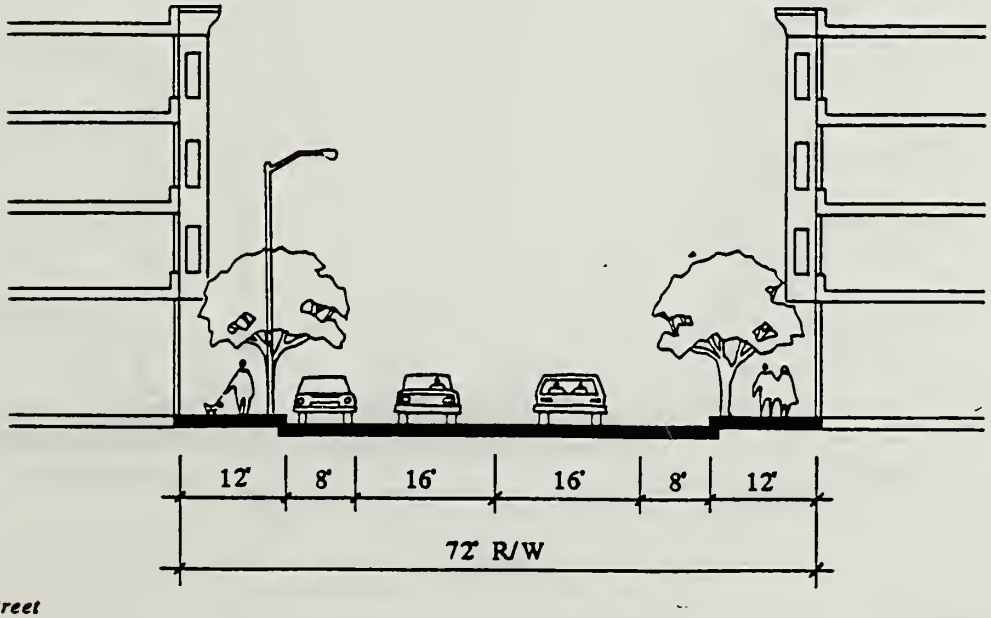
Long Bridge Street

12. Long Bridge Street

This will be the major neighborhood shopping street where the emphasis should be on pedestrian street level activity. Street furniture is encouraged to accommodate intense pedestrian activity through generous provision of bus stop shelters and benches, public telephones, trash receptacles and newspaper stands. In addition, cafe tables and commercial displays are to be provided to the extent that a clear walkway of at least eight feet is maintained.

The trees should have a classical formal character, be pedestrian in scale and the spacing should align on both sides of the street to create an allee. Pollarded Linden are recommended. The intent is to create a continuous trellis canopy rather than singular tree canopies. At the intersection of the open space system with Crescent Park, the canopy should stop to open up the plaza to the street as one central space rather than divide both sides of the street. Refer to the Open Space Guidelines for this intersection treatment.

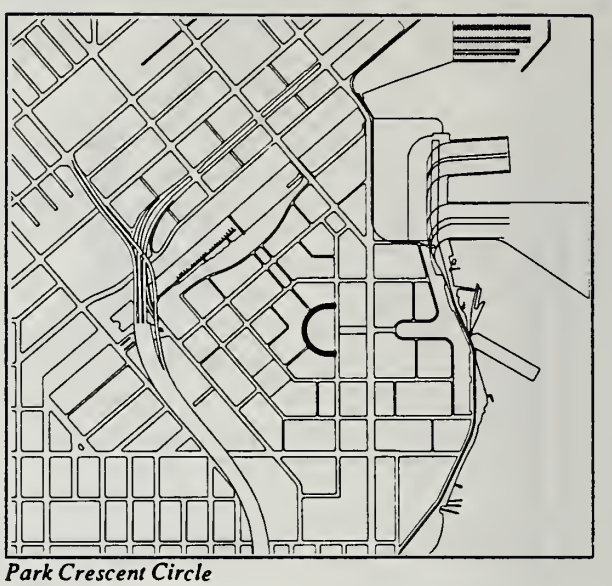
South of 16th Street, Long Bridge Street is reduced to a width of 51 feet to accommodate a 21-foot park pathway extending to Minnesota Park.



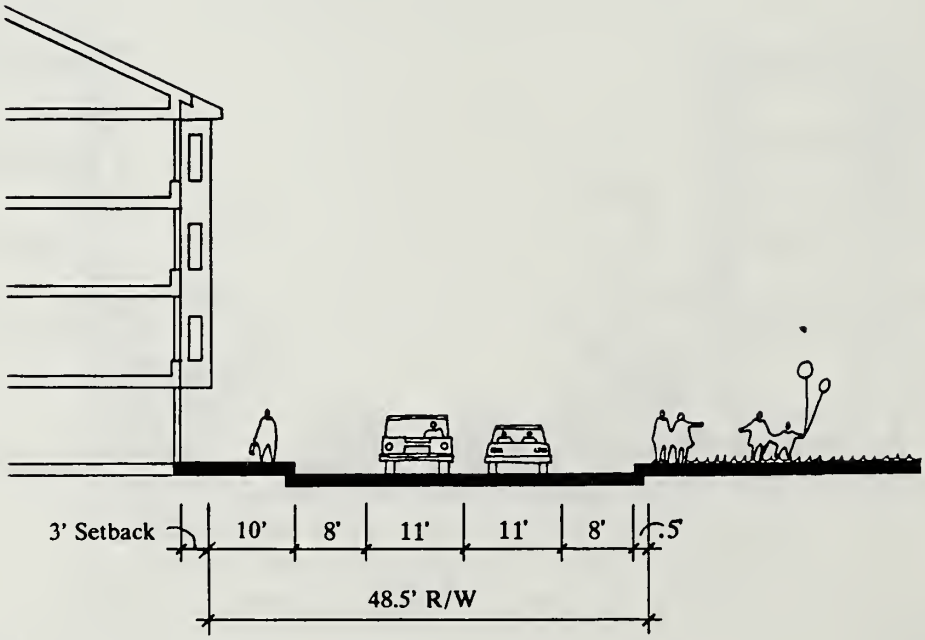
Long Bridge Street

13. Park Crescent Circle

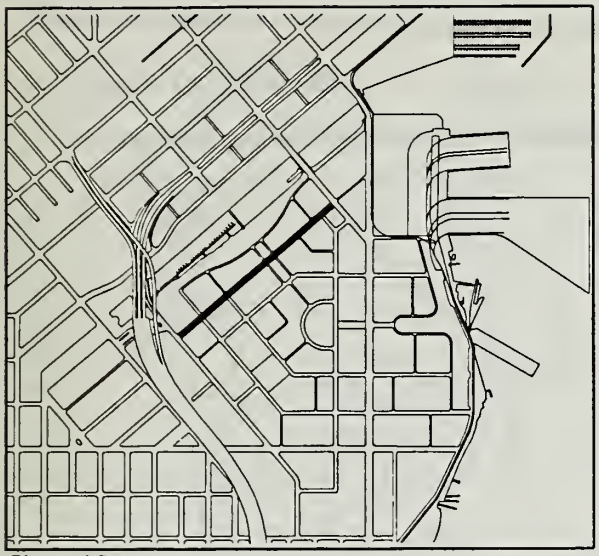
Park Crescent Circle will be a neighborhood street framing Crescent Park. This street is intended to have a strong formal character that establishes the identity of the neighborhood. An allee of palm trees will create a promenade around the crescent which will emphasize and enhance the curve of the buildings and the street. It will also open up views to the park due to the high, distinguished tree canopy.



Park Crescent Circle



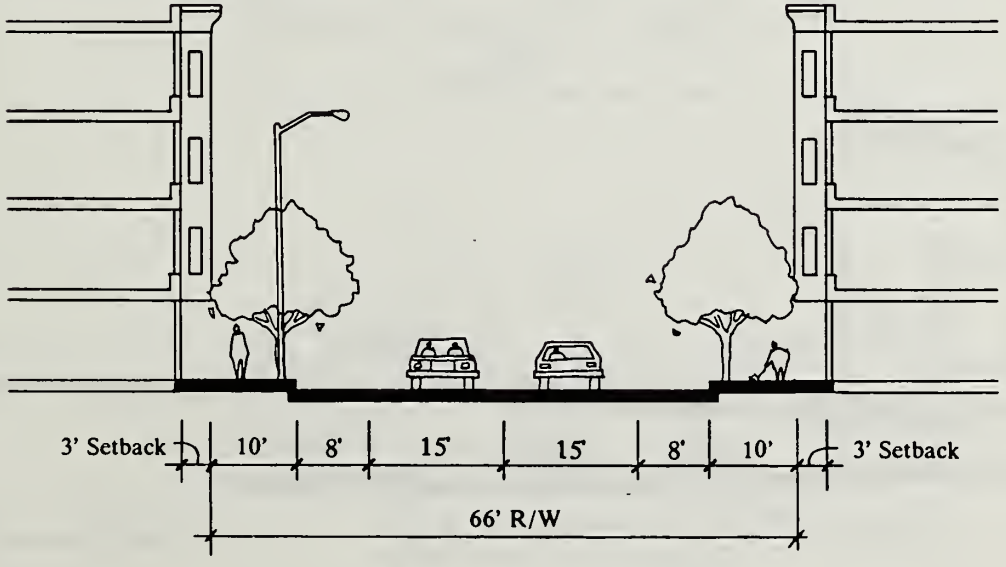
Park Crescent Circle



Channel Street

14. Channel Street

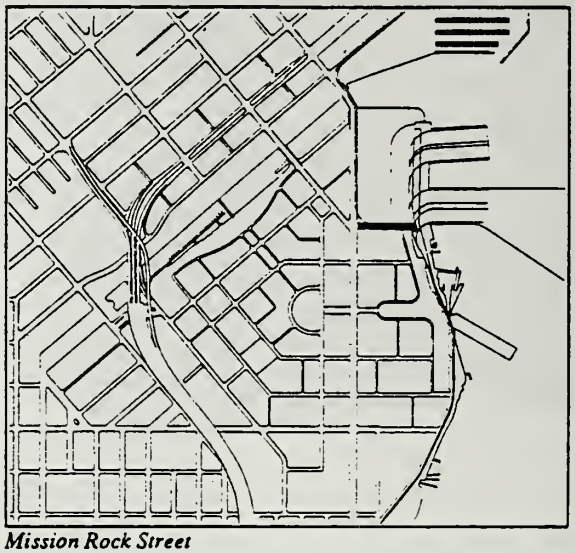
This street parallels the Mission Bay Channel. It will be used as a major bus route. The intent is for Channel Street to create a southern border for the Channel area and for Berry Street to create the northern border. Both streets should use the same medium sized deciduous trees. Linden trees are recommended because of their excellent fall color, pyramidal form and fine-textured canopy.



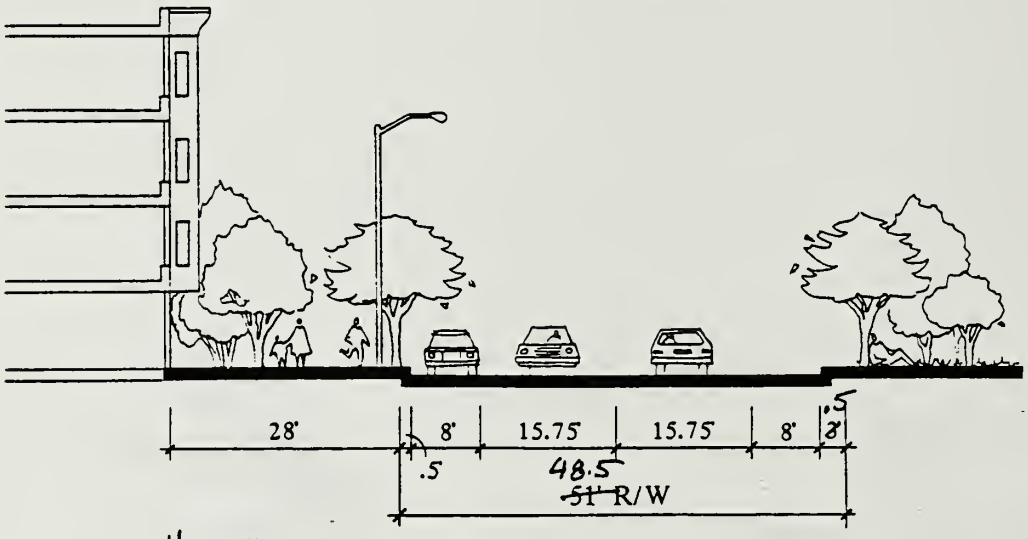
Channel Street

15. Mission Rock Street

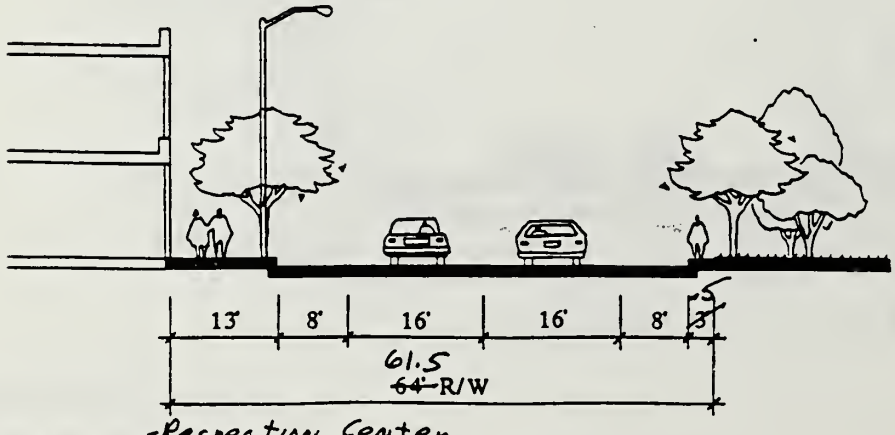
Mission Rock Street provides critical port facilities access as well as access to Mission Bay Green and the Mission Bay Recreation Center. A consistent tree canopy should have a dominant architectural form and create an informal setting. Prymus calleryana 'Bradford' is recommended. This pear tree variety has a more architectural form than other varieties.



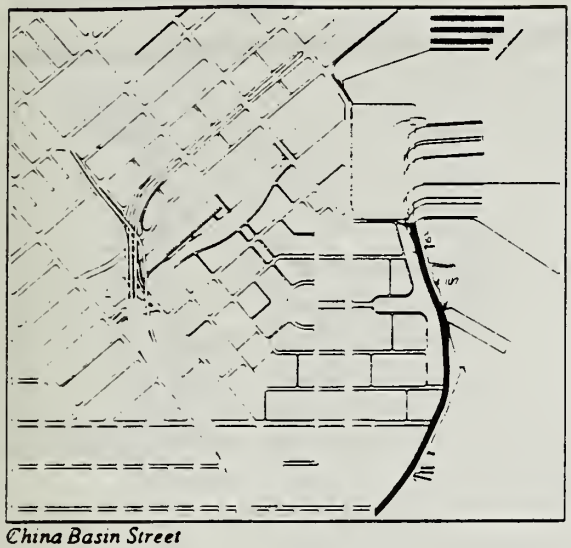
Mission Rock Street



Mission Rock Street Near ~~Port Facilities~~ Housing



Mission Rock Street Near ~~Mission Point Park~~ Recreation Center



China Basin Street

16. China Basin Street

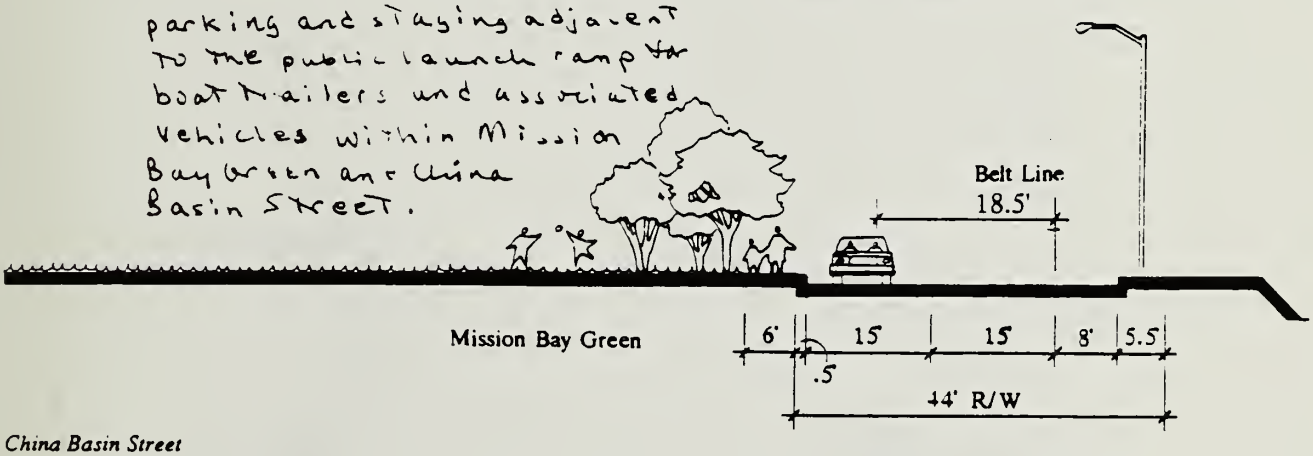
China Basin Street located at the eastern edge of the Mission Bay Plan area should continue to be a major street for access to Port facilities. This will also be a major public street for access to the parks and for enjoyment of the bay. Parking which increases the right-of-way up to 62 feet is to be provided in several locations for the Port and the public (see page 3-49 for location of parking). The Belt Railroad right-of-way should be located in China Basin Street. Street tree planting will be informal with mixed species.

50

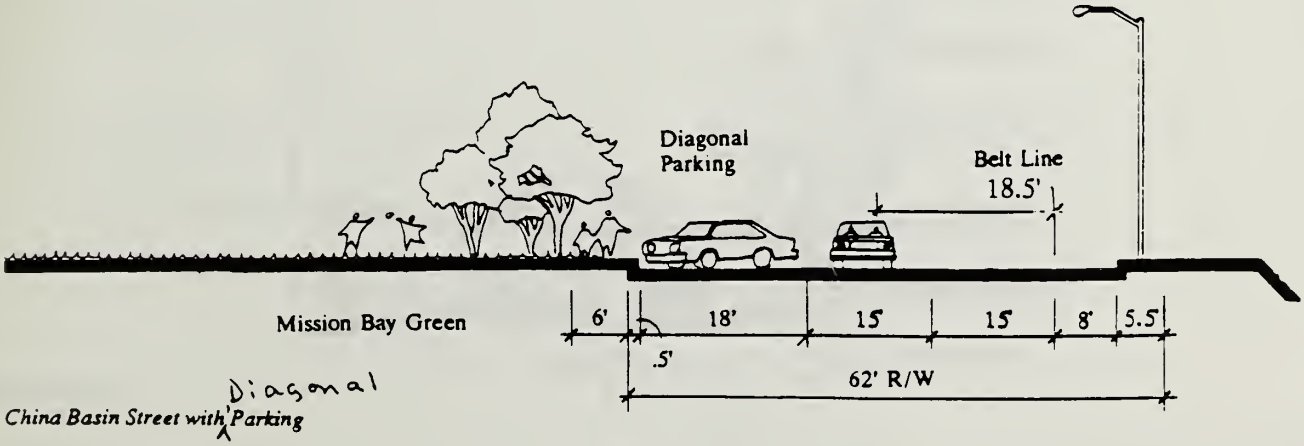
including, if necessary, a run-around track,

This may require widening China Basin Street up to 5 feet beyond the proposed 44' right-of-way.

In addition, there will be parking and staging adjacent to the public launch ramp for boat trailers and associated vehicles within Mission Bay Green and China Basin Street.



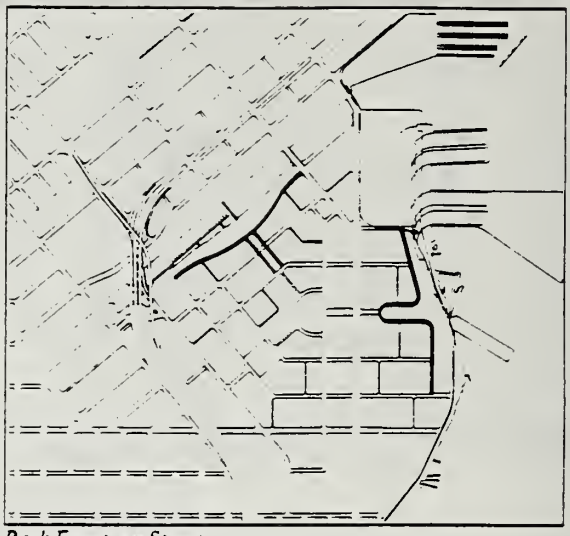
China Basin Street



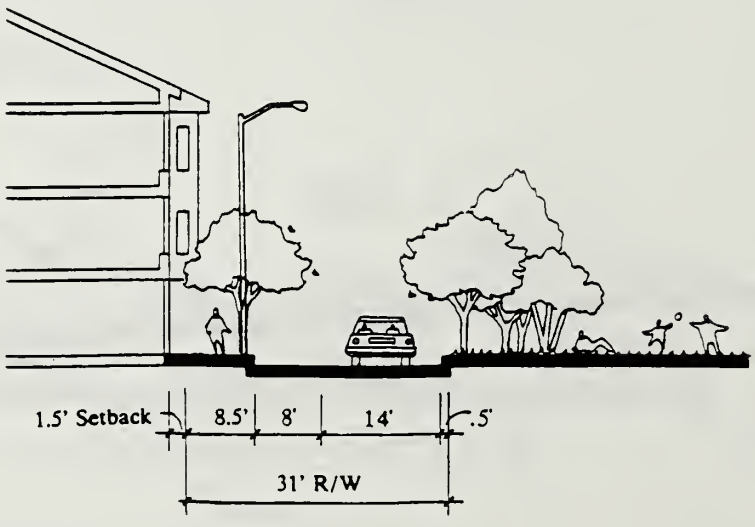
China Basin Street with Diagonal Parking

17. Park Frontage Streets

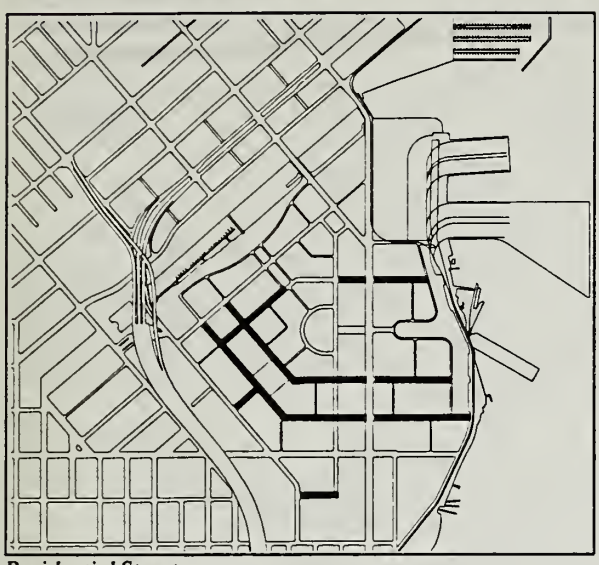
Park frontage streets will be one-way peripheral streets intended to provide access to abutting residential uses. Channel Green Street is south of China Basin Channel and gently curves around the park. Fifth Street is adjacent to Northwest Radial Park. Mission Bay Street and Michigan Streets are located on the east side of Mission Bay Green Park. Street trees should be planted on the building side of the street only. A medium sized, flowering tree with a strong architectural form is recommended. The connection of Channel Green Street to Sixth Street is 49 feet in width.



Park Frontage Streets



Park Frontage Street

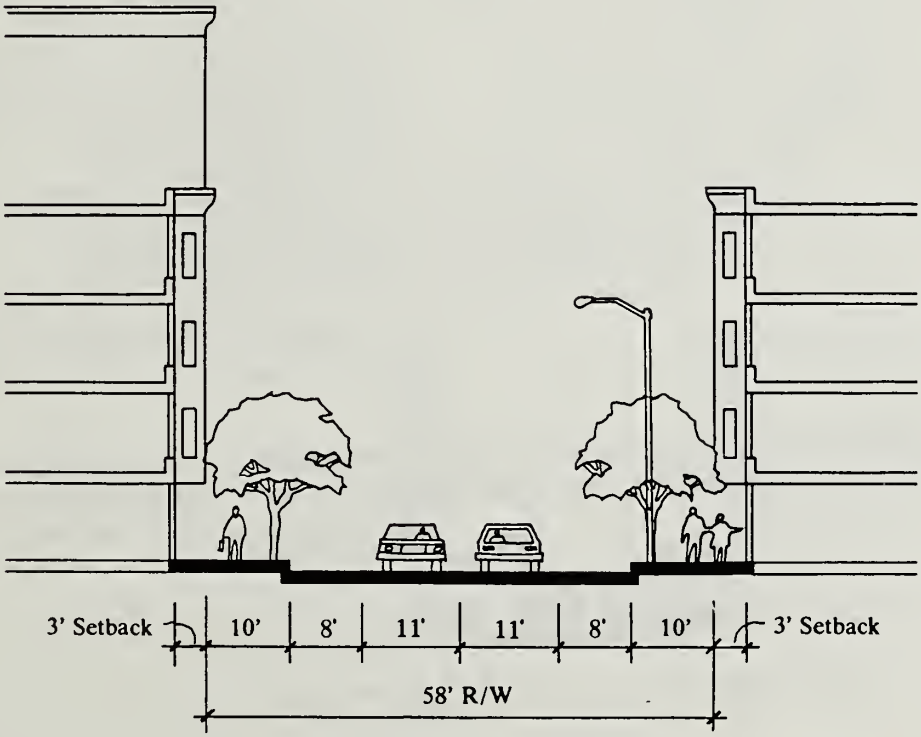


Residential Streets

18. Residential Streets

The residential streets are: Park Crescent North (from Fifth Street to Sixth Street and from Long Bridge Street to Mission Bay Street), Park Crescent South (from Channel Street to Michigan Street), Sixth Street (from Channel Street to Third Street), Mission Creek Street (from Third Street to China Basin Street), Daggett Street and Seventeenth Street (south of Minnesota Park).

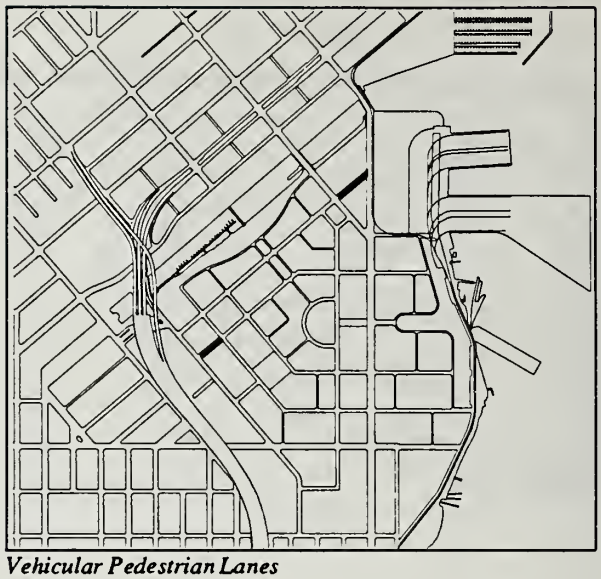
The residential streets are to be 58 feet wide and should establish a character which is distinct from the primary streets in Mission Bay. They should be planted with small to medium sized trees. The species used should be consistent within a block but may vary block to block.



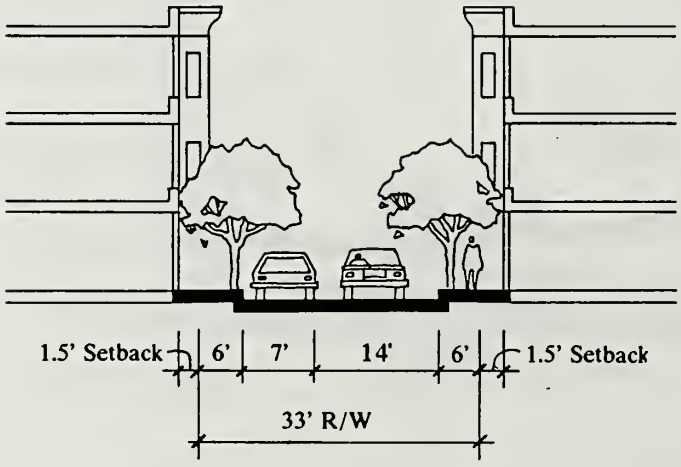
Residential Street

19. Vehicular Pedestrian Lanes

These are the lanes referred to in the Residential Design Guidelines. Lanes should be typically one-way neighborhood-oriented streets with one lane of parking. Trees should be very small, deciduous trees with open canopies to allow filtered light along the narrow right-of-way. Trees should be located only where the setback area is clear and developed with sidewalk paving. Sidewalks may be flush with roadways and bollards may be substituted for curbs for building protection.



Vehicular Pedestrian Lanes



Vehicular Pedestrian Lane

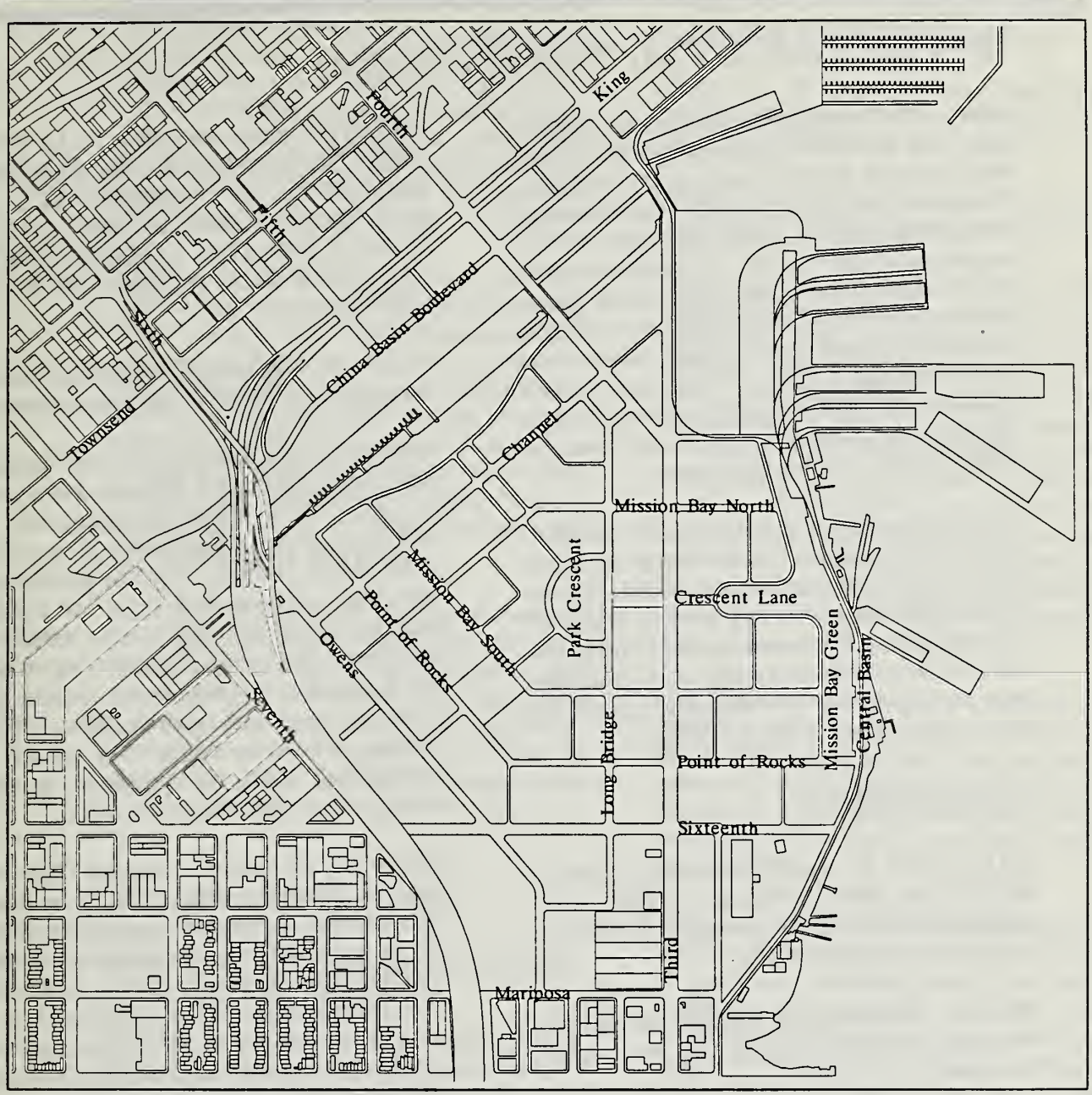


Figure 20: Suggested Street Names

Note: This figure shows the proposed Mission Bay street pattern with historic names that suit the neighborhood and reflect the area's earlier geography and history. The use of these names should be considered in the formal naming of the streets.

ENVIRONMENTAL PROTECTION

Mission Bay encompasses two natural resource areas that have value community-wide: China Basin Channel and San Francisco Bay shoreline. The intent of the Plan is to improve those areas and incorporate them as natural amenities for the neighborhood and the City. This effort to protect these resources is explained in this section. It goes hand-in-hand with efforts to minimize the adverse impacts on the environment of built elements such as transportation systems. Traffic noise can be a widespread intrusion or health factor which can be minimized by a number of land use and transportation decisions, as described herein.

A third component of the environment addressed in this section is energy. The management of energy resources in this Plan includes efficient land use to minimize travel costs and building design including lighting, appliances, heating/cooling systems and alternative energy uses. Also, there have been careful choices of traffic/transit routes and systems that reduce energy consumption.

Conservation

OBJECTIVE 35: ACHIEVE A BALANCE BETWEEN THE CONSERVATION, USE AND DEVELOPMENT OF MISSION BAY'S NATURAL RESOURCES.

Policy 1: Preserve and enhance the natural resources of the Mission Bay plan area and its environs.

Policy 2: Encourage the development of open space that reflects the natural and historic qualities of Mission Bay.

Policy 3: Maintain and improve the existing wildlife environment in or near the Mission Bay plan area.

OBJECTIVE 36: ASSURE THAT USE OF THE MISSION BAY LAND RESOURCES RESPECTS AND PRESERVES THE NATURAL VALUES OF THE LAND AND SERVES THE BEST INTERESTS OF THE CITY AND THE MISSION BAY COMMUNITY.

Policy 1: Encourage broad and effective management of Mission Bay natural resources.

Over the past one hundred years, San Franciscans have capitalized upon Mission Bay's natural resources for economic development. The 260 acre bay has shrunk to the 12 acre size of China Basin Channel. The San Francisco Bay shoreline has been built upon for numerous maritime-related activities. What remains is a degraded 200 foot wide, 3,400 foot long waterway and a shoreline developed with massive piers, buildings, small boat repair facilities, local restaurants or lined by riprap. The Mission Bay development offers the opportunity to restore natural qualities to some of these areas.

Mission Bay encompasses the entire China Basin Channel, including about 7,000 linear feet of Channel edge. Substantial clearing and cleaning will be conducted to eliminate refuse and rubble from the edges. The banks of the southern edge, 50 to 200 feet wide, will be redesigned as a soft natural landscape. The northern edge, an average of 60 feet wide, will respond to adjacent land uses with paved terraces and walkways. Both solutions respect the natural beauty of the Channel and create varied opportunities for individuals or groups to enjoy this unique San Francisco setting.

Only 700 linear feet of the actual shoreline of San Francisco Bay are part of the Mission Bay Plan, because maritime-related activities will continue to occupy much of the Bay's edge in this area. This direct Bay frontage is located on the edge of the Mission ~~Point~~ Bay Wetlands Park at the mouth of China Basin Channel. Mission Bay parks and open space parallel another 3,000 linear feet, set back about 49 to 62 feet from the water's edge. Both conditions represent an opportunity to enhance this natural resource.

Mission Bay cleanup and repair of the shoreline at Mission ~~Point~~ Park will improve the physical condition of this asset. The thrust of the effort at Mission ~~Point~~ Park will be to repair the damage done in previous decades and render it a healthy, natural setting for wildlife and people. In addition, ~~open space~~ planned here will give San Franciscans and regional visitors shoreline access to China Basin, a functioning navigable waterway.

Mission Bay Green, running parallel to the Bay, enhances this shoreline area by greatly increasing people's enjoyment of it. With broad expanses of greenery and open vistas, long range views of the Bay will be possible both from Mission Bay Green and from inside the Mission Bay neighborhood. Potrero Hill residents will look down on a green waterfront park that never existed before. This stretch of shoreline viewed from one of the many boats that use the Bay will be beautified by twelve acres of landscaped open space.

Through these aspects of the Plan and widespread provision of open space and parks in Mission Bay, efforts will be made to establish a balance between the proposed new development and the natural environment. All of these open space areas will be managed through coordination and the efforts of the City, the Project Sponsor and the regulatory agencies that protect the region's natural resources.

Transportation Noise

OBJECTIVE 37: MINIMIZE TRANSPORTATION-RELATED NOISE.

Policy 1: Encourage the use of electric trolley coaches for new transit within Mission Bay.

Policy 2: Discourage greater traffic noise in noise-sensitive areas.

OBJECTIVE 38: LOCATE LAND USES THAT ARE COMPATIBLE WITH TRANSPORTATION NOISE LEVELS.

Policy 1: Discourage new uses where the noise level exceeds the noise compatibility guidelines for that use unless adequate noise insulation is feasible.

OBJECTIVE 39: MINIMIZE THE IMPACT OF NOISE ON AFFECTED AREAS.

Policy 1: Promote site planning, building orientation and design that will lessen or buffer noise intrusion.

Policy 2: Promote the incorporation of noise insulation materials in new construction.

Circulation by automobiles, transit vehicles, bicycles and pedestrians is essential for a fully functional City and neighborhood. San Francisco operates within a complete network of streets, transit systems and walkways. Mission Bay must be connected to citywide streets and transit systems and must provide pedestrian linkages. While all of these transportation modes have positive effects on San Franciscans' way-of-life, noisy transportation can have an unpleasant or harmful effect as well. The Mission Bay Plan seeks to minimize the effects of transportation-related noise while achieving the vitality and efficiency transportation offers.

The Plan will implement several means of minimizing noise. First, electric trolley coaches will be used on three of the four Muni bus routes that crisscross the neighborhood. The fourth, the 15-Third, is not routed down quiet central residential streets but will be readily accessible to residents from nearby homes.

Land uses more compatible with transportation noise are located next to major transit corridors. In particular, workplaces back up to the Cal-Train/Muni Metro corridor and I-280. Sound proofing in the construction of these commercial-light industrial buildings can create a pleasant indoor working environment even next to major noise generators. Similarly, commercial structures lining King Street will shield occupants from vehicular and transit traffic on this major thoroughfare. Third Street, the other major trafficway in Mission Bay, also has been designed with ground floor and second floor uses that can tolerate traffic volumes below housing planned for the top three to four floors. Building orientation and design, as well as site planning that can protect open space, will lessen noise intrusion.

Energy Conservation

OBJECTIVE 40: PROMOTE ENERGY CONSERVATION IN MISSION BAY.

Policy 1: Encourage non-energy intensive transportation modes, such as bicycling and walking.

Policy 2: Explore the use of alternative energy sources and consider a district heating system.

Policy 3: Provide recycling facilities.

In Mission Bay, the general goal of increased energy efficiency will take many specific forms when buildings are actually designed and built. Inside residential buildings, energy efficient equipment and appliances along with building system operations and maintenance programs are recommended for further savings. In large non-residential buildings, full energy management and control systems should be implemented along with occupancy-sensors in appropriate locations. Also, installation of 100% air economizers is recommended. In both types of buildings metering will allow monitoring of ongoing energy utilization.

Indoor and outdoor lighting in Mission Bay will maximize efficiency and use lighting power reduction strategies wherever feasible. Multiple alternatives for reaching desirable efficiencies in lighting and other energy usage can be employed. In addition, wherever possible, as future technologies allow, Mission Bay may be the site for use of photovoltaic or other advanced energy efficient systems.

Like the rest of San Francisco, Mission Bay enjoys a temperate climate and is a compact area for development. Those two factors will allow for more bicycling and walking because distances between origins and destinations will be minimal, thereby reducing fuel consumption.

Residents and workers in Mission Bay will have the opportunity to conserve resources through recycling. They will be able to take advantage of recycling services offered in the City. A recycling facility may be located within Mission Bay and residents will be able to participate in the City's residential recycling program. Recycling areas in all non-residential buildings can be provided as well.

OBJECTIVE 41: ENCOURAGE DEVELOPMENT WHICH IS SENSITIVE TO THE NEEDS FOR SOLAR ACCESS, SHELTER FROM WINDS AND VENTILATION.

Policy 1: Orient streets and residential buildings for maximum solar access to dwelling units where appropriate.

Policy 2: Provide solar access for major indoor living spaces and exterior private spaces to the extent feasible.

Policy 3: Provide through ventilation of dwelling units where possible.

Policy 4: Create wind shielding for private open space where appropriate.

Residential units will be designed to maximize passive solar heating and natural ventilation to reduce energy needs where feasible. This will be achieved through overall building orientation, floor plans, window and door locations and specific glazing treatments for windows.

The orientation of streets and residential buildings will, to the extent feasible, maximize solar access. Direct solar access for shared indoor spaces in residences and natural ventilation also will reduce the consumption of fossil fuels for cooling and heating homes. Optimized glazing of windows in non-residential buildings will further reduce energy consumption.

The Mission Bay Energy Plan (See Chapter 4) seeks to increase efficient energy use, diversify energy resource supplies, and foster economic management services and renewable energy systems.

Water Conservation

OBJECTIVE 42: PROMOTE WATER CONSERVATION MEASURES BY MINIMIZING WATER USE FOR HOUSEHOLDS, IRRIGATION AND LANDSCAPING.

Policy 1: Use water systems and fixtures that provide maximum efficiency of water use.

Policy 2: Design landscapes that require lower quantities of water to remain healthy.

Policy 3: Ensure through preventative maintenance that water systems and fixtures will function property.

In addition to meeting requirements in local and State codes for the proper function of water systems and fixtures, increased water conservation is desirable in Mission Bay. Low water use/energy efficient appliances and sprinkler systems can achieve greater efficiency yet meet such traditional needs as dishwashing and landscape irrigation.

To achieve this, recommended water conservation measures have been identified. They address indoor and outdoor water use, landscaping and maintenance techniques (see chapter 4).

Many plants, shrubs and trees are by nature drought-resistant or require low water use to remain healthy. The use of such vegetation and the judicious allocation of turf throughout Mission Bay will reduce wasteful water utilization while allowing for ample open green spaces. In addition, metering systems with watering schedules and pressure controls should be used to ensure that water usage is monitored.

Preventative maintenance programs should be established which keep all water-using fixtures and irrigation systems in good working order.

COMMUNITY SAFETY

Life Safety

OBJECTIVE 43: CREATE DEVELOPMENT DESIGNED TO ENSURE SEISMIC SAFETY.

Policy 1: Require geologic or soil engineering site investigations and compensating structural design based on findings for all new structures in special geologic study areas.

Policy 2: Assure that critical community facilities, if located in special geologic study areas, have special engineering design to ameliorate identified risks and accommodate emergency assembly of nearby residents.

Policy 3: Ensure that land uses and structures are located to meet acceptable minimum levels of risk.

Policy 4: Provide for the adequate security of employees and property.

Mission Bay, like many other developed areas around the edge of San Francisco Bay, exhibits particular bay mud subsurface and soils conditions that must and will be taken into account as site preparation, engineering design and construction are conducted. Minimum levels of acceptable risk to structures and land uses will be identified and assured through careful engineering design.

Building foundations that provide protection against liquefaction, ~~and~~ lateral spreading or lurching (as in a landslide) and differential settlement will be constructed as necessary in Mission Bay. The development of seismic criteria for the design and evaluation of buildings will include consideration of geology, seismology, seismicity, soils engineering, structural dynamics, structural design, earthquake engineering and experience gathered from past earthquakes. Construction of certain types of buildings that tend to suffer more damage in strong earthquake will be restricted. Inspection of buildings under construction will be performed to ensure that construction practices meet seismic criteria.

Engineering studies may indicate the need for special engineering design, particularly for critical community facilities such as fire, police and school buildings. Such buildings will be built to withstand a major earthquake and serve as an emergency shelter. To suit such needs, permitted types of structures will be modified where appropriate to achieve levels of acceptable risk. The historic Fire Station 30, will receive seismic upgrading to reinforce its older structural framework.

In accordance with State and local law, within public and private facilities in Mission Bay, emergency evacuation procedures will be posted and employees will be informed of the procedures particular to their building.

Hazardous Materials

OBJECTIVE 44: ENSURE THAT ALL NEW MISSION BAY DEVELOPMENT MEETS STRICT ENVIRONMENTAL QUALITY STANDARDS.

Policy 1: Provide hazardous materials remediation prior to completion of construction and occupancy.

Policy 2: Ensure that any future use of hazardous materials does not create undesirable levels of future risk for employees and nearby populations.

Given the potential for surface and subsurface contamination from historic (e.g. garbage dump) and existing (e.g. rail/truck operations) industries in the plan area, a hazard mitigation program has been developed for Mission Bay. Preliminary investigations have identified a range of hazardous materials that are potential contaminants on the site. Further site investigations will be required to identify soil and groundwater conditions before each area of the site is developed.

Based on the findings of the site investigation, an ~~Remedial Action Plan (RAP)~~ Approved Remediation Plan (ARP), requiring approval by the California Department of Health Services,

will be developed to guide the cleanup of the specific areas classified as hazardous. In the ~~RAP,~~ ARP specific mitigation actions to deal with the types, amounts, concentrations and distribution of hazardous wastes will be established. Implementation of the mitigation actions will precede each phase of development.

State and City laws regulating the use of hazardous material in Mission Bay will serve to minimize any undesirable level of future risk for employees or neighbors.

Emergency Operations

OBJECTIVE 45: MINIMIZE HAZARDS TO LIFE SAFETY AND PROPERTY DAMAGE IN MISSION BAY.

Policy 1: Provide for emergency services in Mission Bay.

Policy 2: Provide comprehensive emergency response planning in coordination with the Mayor's Office of Emergency Services.

Lives and property will be protected from the effects of fire or natural disaster in part through emergency preparedness provided within the plan area. Fire and police services will originate at Firehouse 30, conveniently located on Third Street near the intersection with Fourth Street. These services, as is standard practice, will be supported by other fire or police stations as needed. Up-to-date emergency operations plans, equipment and operations capacity will be maintained by the fire and police departments. An emergency operations center may be set up at Firehouse 30 public facilities complex to be coordinated with the Mayor's Office of Emergency Services.

The Mission Bay Emergency Response Plan is included in Chapter 4.

MISSION BAY SPECIFIC PLAN

CHAPTER 4: IMPLEMENTATION

June 29, 1990

As Amended and Adopted
September 20, 1990

Mission Bay Specific Plan
Chapter 4: Implementation

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A. Introduction

As Section 65451 of the California Government Code indicates, a complete Specific Plan must contain a program of implementation measures to carry out the plan. This Chapter, addresses all the key measures to be taken and defines the processes for implementation. In addition, this section outlines the Mission Bay Plan approval process and delineates the guiding Principles for Plan Implementation. Lastly, implementation measures are linked to the Mission Bay Specific Plan Objectives and Policies that they will help to achieve.

The Mission Bay implementation measures include the City's Master Plan, this Plan, the Mission Bay Development Agreement, the City Planning Code and Zoning Map, the City Subdivision Code, two Land Exchange Agreements, a License of Port property, a Master Tentative Subdivision Map and Final Subdivision Maps. These lengthy documents are not reproduced in this Specific Plan; rather, the contents and functions of each implementation measure are summarized in this chapter and incorporated into the Specific Plan by reference.

The implementation measures set forth in this Plan describe the particular, consistent implementation of Plan objectives and policies under the Mission Bay Development Program and Development Agreement. In the absence of that Development Agreement, development proposals would have to be tested for consistency with this Specific Plan at the time they are made.

B. Major Implementation Measures

The following actions will be taken to implement the Mission Bay Plan. The purpose of each is described below.

- Master Plan of the City and County of San Francisco - Adopt amendments to Master Plan Elements and the Central Waterfront Plan and adopt the Mission Bay Specific Plan.
- Mission Bay Development Agreement - Adopt a Development Agreement Ordinance.
- San Francisco City Planning Code - Adopt amendments to the City Planning Code.
- San Francisco Zoning Map - Adopt amendments to the Zoning Map.
- San Francisco Subdivision Code and Subdivision Regulations - Adopt amendments to the Subdivision Code and Subdivision Regulations.
- Mission Bay Land Exchange Agreements - Adopt ordinances authorizing the sale, exchange, license and donation of property.
- Mission Bay Master Tentative Subdivision Map and Final Maps - Approve a Master Tentative Subdivision Map, and ultimately approve Final Maps.

Action by the Planning Commission, the Board of Supervisors, the Port Commission, and, as appropriate, other regulatory agencies, is required to establish the full program of implementation measures necessary to implement the Mission Bay Plan, as described in Chapter 4, Section C.

1. Master Plan of the City and County of San Francisco

The City's Master Plan is an adopted long range comprehensive plan for the physical development of the City's land. It consists of statements of development goals, objectives and policies, and maps or diagrams depicting planning principles and proposals. It includes mandatory elements about residence, transportation, recreation and open space, community facilities, community safety, environmental protection and optional elements about commerce and industry, and urban design. It is based on requirements of State law (Government Code Section 65860-et seq), and San Francisco Charter Section 3.524-3.526. A limited number of Master Plan text and graphic changes ~~are~~ have been required to ensure that the Master Plan and Mission Bay Plan are consistent.

The City has adopted several Area Plans as part of the Master Plan which further explain Master Plan objectives as they pertain to particular geographic areas of the City. The Central Waterfront Plan, in which Mission Bay is located, is such an area plan. It addresses objectives and policies for land use, industry, maritime, commerce, residence, transportation, recreation, open space and urban design for the Central Waterfront Plan area. It also sets forth objectives and policies for its six subareas. ~~Mission Bay occupies all of the China Basin subarea and part of the Central Basin subarea in the Central Waterfront Plan.~~ Text and map

revisions to the Central Waterfront Plan were necessary so that this document will be consistent with the Mission Bay Plan.

The Mission Bay Plan is adopted as part of the City's Master Plan and is incorporated by reference in the Central Waterfront Plan. It satisfies the requirements of Government Code 65451 for a Specific Plan. Its provisions result directly from and conform to the Master Plan goals, objectives, policies and proposals. As part of the Central Waterfront Plan, it also refines and promotes the objectives and policies stated in the Area Plan.

2. Mission Bay Development Agreement

California cities have been authorized by the State Legislature to enter into development agreements (Government Code Sections 65864-65869.5). San Francisco Administrative Code, Chapter 56, authorizes development agreements and establishes procedures for their adoption and monitoring. The City and County of San Francisco and the Project Sponsor intend to enter into such an agreement. Through the development agreement, the Project Sponsor will gain a vested right to develop the subject property to the height, density and intensity and for the uses specified in the Mission Bay Plan provided that the terms and conditions of the agreement are satisfied. In exchange, the City will receive benefits which would not otherwise be obtainable. These benefits include a comprehensive plan for developing the entire plan area and upfront investment in project-wide infrastructure, improvements, land dedications and community facilities which would not occur without assurance that the Plan can ultimately be implemented.

(Subject to certain limitations and extensions)

The Development Agreement shall remain in effect for twenty-two years, beginning on the closing date of the City/Project Sponsor Land Exchange Agreement. The Project Sponsor may elect to extend the term of the agreement for two consecutive five-year periods. The Development Agreement establishes covenants, conditions, regulations and procedures which control plan area development. The Agreement provides for the construction and dedication of infrastructure, parks and open space, community facilities and for the funding of those items, and the payment of development fees, ~~such as the Transit Impact Development Fee.~~ In addition, several of the principal public benefits associated with the Mission Bay Plan are provided for in documents incorporated as Special Conditions to the Development Agreement, including:

- Housing Program
- Hazardous Materials Investigation and Remediation Program
- Affirmative Action and Economic Development Plan
- Child-Care Fee and Development Program

The Development Agreement also includes provisions which govern such issues as assignment of rights and obligations, amendment and modification, default and termination, and procedures for an annual review by the City of the Project Sponsor's compliance with the Development Agreement.

3. City Planning Code

The San Francisco City Planning Code, Part II of the Municipal Code, defines all zoning categories, definitions, control provisions and review procedures applicable to all land within San Francisco under the City's jurisdiction. A new Article 9 will be added to the City Planning Code, defining the zoning, land use regulations and procedures for the Mission Bay plan area. The intent of Article 9 is to provide a comprehensive and flexible zoning system for Mission Bay use districts consistent with the objectives and policies set forth in the Mission Bay Plan. It provides in one article a complete listing of or cross reference to all of the zoning categories, definitions, control provisions and review procedures which are applicable to properties or uses in the Mission Bay plan area.

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4. Zoning Map

The Mission Bay Zoning Map depicts the location of all land use and height districts for the plan area. It is consistent with the Mission Bay Specific Plan and the proposed revisions to the City Planning Code. This Mission Bay Zoning map information will be incorporated into the citywide Zoning Map following adoption of the Mission Bay Plan.

5. Subdivision Code and Subdivision Regulation Amendments

have been
The City's Subdivision Code and Subdivision Regulations will be amended, as necessary, to authorize the approach to the subdivision process discussed below (Measure No. 7).

6. Land ~~Exchange~~ Transfer and License Agreements

~~A number of land exchanges will be undertaken to facilitate the implementation of Mission Bay. One is an exchange between the City and the Project Sponsor to transfer former and existing public rights-of-way to the Project Sponsor, in exchange for about 27 acres of land transferred to the City. The exact parcels which the City will receive vary depending upon whether the CalTrain terminal is relocated as shown in the Plan.~~

Another agreement will provide for the exchange of the Project Sponsor's property adjacent to Pier 80 for Port land next to Mission Bay. This land exchange is a necessary ~~precondition~~ to establish~~ing~~ the planned land use program on the Mission Bay site. The intent of this agreement is twofold: to integrate certain Port properties adjacent to Mission Bay into the Mission Bay plan area and to enhance the Port's container operations and facilities by consolidating their property in and around Pier 80. To achieve this, the Project Sponsor will exchange approximately 26 acres of its land adjacent to Pier 80 for approximately 14.8 acres of land currently owned by the Port adjacent to Mission Bay. Of the 14.8 acres received by the Project Sponsor (or City), about 3.2 acres will be used for affordable housing and community facilities and about 11.6 acres will be used primarily for market rate housing. The Port will receive the 26 acres adjacent to Pier 80, and also have the use of about ~~8.5~~ 11.8 acres of streets associated with this property for a total of approximately ~~34.5~~ 38.1 acres. This will permit the

A number of land transfers will be undertaken to facilitate the implementation of Mission Bay. Under one agreement, the City will transfer to the Project Sponsor former and existing public rights-of-way, and the Project Sponsor will transfer to the City about 26 acres of land. The exact parcels which the City will receive will vary depending upon whether CalTrain tracks are relocated from the Seventh and Channel site.

Port to develop a modern, competitive, consolidated container facility in accordance with the Regional Seaport Plan of the Bay Conservation and Development Commission and the Metropolitan Transportation Commission. The Port Land Exchange Agreements are subject to review by the State Lands Commission.

The Port and the Project Sponsor will also enter into an ~~Option/License~~ Agreement to License and to Option which calls for the license of approximately 22 acres of Port property primarily adjacent to the waterfront to be developed by the Project Sponsor as open space for the City and Mission Bay. The license grants the Project Sponsor the right to enter the property and construct the park but does not convey property rights to the Project Sponsor. The Port will collect a fee of approximately $2 million a year, over a period the equivalent of 30 years as escalated, from the Project Sponsor for the right to develop open space on this property. The Project Sponsor will be responsible for paying the fee and building the open space. These funds will be used by the Port to help meet its other maritime operations and development needs. The Port will continue to keep these lands in open space use after the expiration of the License Agreement.

There are also agreements providing for the acquisition of certain lands for the MUNI Metro Yard and tracks as shown on the Specific Plan. ~~and an agreement providing for the donation of~~ The Project Sponsor also anticipates donating approximately ~~seven~~ 2 acres of King Street right-of-way to provide the local match for the federal funding of the King Street improvements and MUNI Metro extension projects.

7. Master Tentative Subdivision Map and Final Maps

Many of the key objectives of the Mission Bay Plan will be achieved through the Subdivision process, including:

- creation of new legal parcels to conform to the new land use pattern designated for Mission Bay;
- installation of public improvements and development of open space necessary to serve the development; and
- dedication of lands and provision of community facilities.

The subdivision process is governed by Government Code 66410 et seq. and the San Francisco Subdivision Code and Regulations, as attached to the Development Agreement. The approach for subdividing the Mission Bay plan area involves initial approval of a Master Tentative Map for the entire site subject to extensive conditions. As explained in the Development Agreement, up to thirty Final Maps may then be filed, with a minimum size of one block. In order to create lots and condominium units, the Master Tentative Map may be amended and/or subsequent tentative and final maps will be approved and filed for the smaller subdivisions.

C. Mission Bay Approval Process

Several steps must be taken to secure approvals for the Mission Bay Plan and its implementation measures. These are summarized in the following matrix.

The matrix displays the actions necessary to complete approvals of the Mission Bay Plan and its implementation measures. The measures are listed in the left hand column; the decisionmakers, across the top of the page. The necessary actions are noted in the matrix, in the sequence that they are likely to occur.

Mission Bay Approval Process

Implementation Measures	City Planning Commission	Board of Supervisors	Port Commission	Department of Public Works	Public Utilities Commissions	
Specific Plan	Adopt					
Master Plan Amendments	Adopt					
Development Agreement	Approve	Adopt	Approve in part			
City Planning Code	Approve	Adopt				
Zoning Map	Approve	Adopt				
Subdivision Ordinance Amendments	Recommend Approval	Approve, Adopt	Recommend Approval			
Subdivision Regulation Amendments				Adopt		
City/Project Sponsor Right-of-Way Land Exchange	Review	Adopt				
Port-Project Sponsor Land Exchange	Review	Adopt	Approve			
Port-Project Sponsor License Exchange	Review	Adopt	Approve			
City-Project Sponsor MUNI Metro Yard Acquisition and King Street Donation	Review	Adopt			Approve	
Master Tentative Subdivision Map	Review	Adopt		Approve, Sign		

Notes

(a) It is anticipated that an exemption to Proposition M for Mission Bay will be submitted to the San Francisco voters to consider an exemption of the Mission Bay office space from the annual office space allocation.

(b) In addition to the foregoing, other regulatory agencies, such as BCDC, State Lands Commission and the United States Coast Guard may have jurisdiction regarding certain aspects of the implementation measures.

D. Guiding Principles for Plan Implementation

As the Mission Bay Plan is implemented, new systems of streets and utilities will be built and new housing, workplaces and open space will gradually replace industrial activities. This process will take twenty to thirty years to complete. The implementation process will be guided by the following principles to (a) ensure orderly, safe and sequential development of new uses, (b) minimize conflicts between new development and the ongoing construction activities, and (c) minimize potential incompatibility during the transition between existing and new uses.

1. The Subdivision Map Process

A Master Tentative Subdivision Map will show the new street grid and the sites for all parks and public improvements and all residential, commercial and retail uses consistent with the Specific Plan.

Subsequent Final Subdivision Maps associated with specific development proposals for parts of Mission Bay will be approved pursuant to the terms and conditions of the Master Tentative Map, the Development Agreement and other applicable land use regulations. There will not be more than thirty (30) Final Maps to finalize the Master Tentative Map. Each Final Map must cover areas block-sized or larger for City approval, with further resubdivision anticipated prior to construction to allow for development of smaller parcels. This approach will provide infrastructure on a comprehensive and coherent basis. Hereafter, wherever the term "Final Map" is used, the reference includes any applications for amendment to the Master Tentative Map, subsequent tentative maps or parcel maps.

The Project Sponsor will not necessarily be the applicant for any Final Maps, but will remain obligated for performance of all conditions of the Master Tentative Map to the extent so provided in the Development Agreement. Prior to each Final Map being approved, the Project Sponsor will be required to meet various conditions specified in the Master Tentative Map, the Development Agreement or other applicable land use regulations. The City, in accordance with the Development Agreement, will also be responsible for constructing certain public improvements and community facilities.

The City retains the discretion to specify required infrastructure in accordance with the Master Tentative Map and Public Improvement Report as a precondition to approval of Final Maps, subject to certain conditions. The Project Sponsor will either complete the required infrastructure prior to approval of the Final Map or installation of infrastructure will be secured to the City's satisfaction as per the Development Agreement and/or the Subdivision Code. Subdivisions will be developed so as to complete required infrastructure and public improvements concurrent with the completion of private developments, unless a different

Generally, the Project Sponsor will construct affordable housing units or provide land to the City for construction of affordable housing, proportionately with market rate housing, with the ratio subject to the specific terms and conditions of the Development Agreement. (Exhibit A-1, Section 9(a))

timing principle is expressly agreed to for that subdivision or subdivision(s).

Subdivisions or linked combinations of subdivisions will contain a balance of land uses which corresponds to required linkages associated with commercial, housing, affordable housing and open space. These are as follows, although larger amounts of open space and affordable housing may be included at any time:

- One housing unit must be provided for every 712 square feet of office or commercial/light industrial space.
- ~~Affordable housing must represent 37.5% of the total housing. On average, 27.5% should be City share and 10% Project Sponsor share, as provided in the Housing Program Agreement.~~
- One acre of open space must be provided for approximately every 150 housing units.

These linkages are cumulative for the project, i.e., to the extent a subdivision exceeds the linkage requirements set forth above, subsequent subdivision linkage requirements can be reduced an equivalent amount. Linkage of office and commercial/light industrial to housing is further specified in the Development Agreement Housing Program.

Once subdivisions are begun they should be diligently pursued to completion. If completion of a residential development plan area lags, the City will have the right to provide the infrastructure improvements needed to complete that plan area [see Section 2(c), Community Facilities District], unless those improvements are otherwise assured.

2. The Sequence of Development

The following sequencing principles and linkage requirements will be carried out through the subdivision process. Principles and requirements for land uses, infrastructure and a Community Facilities District are described.

a. Land Uses

1. Housing

Housing may be developed as rapidly as the Project Sponsor desires, subject to the required provision of infrastructure, community and cultural facilities and open space, set forth later in this Section 2. Insert 1 (see next page)

Insert 2 (see next page)

The construction of office and commercial/light industrial space will be accompanied by the construction of housing. ~~Housing will be provided at a ratio of one housing unit for each 712 square feet of office or commercial/light industrial space, and 37.5% of the total new housing units will be subject to affordability requirements. City affordable housing will equal 27.5% of the total housing.~~

Insert #1

The Development Agreement provides, subject to provisions for unavoidable delay and delays due to matters beyond the reasonable control of the Project Sponsor, for the Project Sponsor to commence the initial increment of housing (estimated to be approximately 500 units) within five years after the satisfaction of specified conditions, and to undertake efforts to have commenced construction of at least 2,000 housing units, of which no less than 740 would be affordable units, by no later than ten years after the satisfaction of such conditions.

Insert #2

Housing will be provided at a ratio of one housing unit for each 712 square feet of office or commercial/light industrial space. Generally, the Project Sponsor will construct affordable units, or provide land to the City for construction of affordable units, in proportion to the market rate units, subject to the specific terms and conditions of the Development Agreement. with the ratio (Exhibit A-1, Section 9(a))

Assuming the proposed annual limit exemption is adopted by the vote

2. Office and Commercial/Light Industrial

Office and Commercial/Light Industrial space may be developed as rapidly as the Project Sponsor desires, subject to the provision of housing (Section 2(a)1) and the other use and infrastructure requirements of these Principles for Plan Implementation, to the Development Agreement and to other City regulations where applicable.

3. Retail and Hotel

Retail and hotel space may be developed as rapidly as the Project Sponsor desires, in accordance with this Plan and subject to the provision of required infrastructure.

4. Community and Cultural Facilities

The following material generally summarizes the provisions for community facilities, as more specifically provided for in the Development Agreement.

a. School

The improved and remediated school site will be available for conveyance to the City by the time the EIR-projected total student population reaches 1000. Direct roadway access between the school site and residential areas will be provided by the time that the school is completed. The park abutting to the north will be developed by the time the school is completed. The City will work with the San Francisco United School District to ensure construction of an elementary or middle school and associated child care facility. If the school is not constructed within 15 years of the site's becoming available, or if at an earlier time the Unified School District decides not to construct the school, the land will be available for park development.

b. Recreation Center

The recreation center will be constructed by the City concurrent with completion of development of the abutting Mission Point Park/Mission Bay Fields Area.

c. Cultural Center

The cultural center will be constructed by the Project Sponsor to specifications agreed upon between the Project Sponsor and the City with a "turnkey transfer" to the City following completion. The center will be constructed in appropriate sequencing with adjacent development, but no later than the date on which certificates of occupancy have been issued for 2,000 housing units. It will be developed on Long Bridge Plaza at the Project Sponsor's election either as a freestanding building or as part of a mixed use building. The Project Sponsor and City will jointly fund a study to define the center's program prior to the time of its design.

For this purpose, the 12.5 acre China Basin Channel shall be considered open space, but only after all other linked open spaces, totaling 50.7 acres, ~~have~~ have been provided.

d. Fire Station

The Project Sponsor will complete off-site infrastructure and all necessary remediation of the site prior to construction of the station. Project Sponsor funding for construction and equipment of the fire station will be made available for an engine and truck company by the time permits have been issued for 2,000 housing units as provided in the Development Agreement. The City will construct and equip the station. The opportunity will exist for a phased expansion program which, if jointly acceptable to the Fire Department and the Project Sponsor, could defer the truck company's facilities to a later time.

e. Police Station

The Project Sponsor will complete off-site infrastructure and all necessary remediation of the site prior to construction of the facility. Project Sponsor funding for construction of the Police Station will be made available by the time permits have been issued for 2,000 housing units. The City will construct the police facility.

5. Parks and Open Space

a. Parks and Open Space Linkages

One acre of public open space will be constructed and completed concurrent with construction and completion of each 150 housing units. The open space will be located in reasonable proximity to the housing units intended to be served, unless the open space is provided as part of a major park development elsewhere in Mission Bay (e.g. Mission Bay Green).

Parks will be available to serve employee populations. The development of the park north of the Channel, capable of serving office employees, and the Mission ~~Point~~ Park ~~Mission Bay Fields Area~~ will commence no later than the time that building permits have been issued for 2.4 million square feet of North of Channel office space.

Bay Wetland

b. Sequencing for Park and Open Space Development

Public park areas will be built as part of the development of the surrounding subdivision(s), subject to linkage requirements stated in the Development Agreement. Each will be considered a condition of approval for the Final Map(s) surrounding it. The Project Sponsor will submit schematic design plans for all park/open space areas and landscaping of public areas (e.g. streets) to be included within a subdivision upon application for a Final Map and preliminary design plans for all such areas with the first building permit application within the subdivision. Park areas shown on approved Final Maps will be completed concurrently with housing covered by that map. Once development of any discrete parks and open space areas, as shown in this Plan, are initiated, the Project Sponsor will complete that park or open space area, except for major parks (i.e. Channel Park and Mission Bay Green).

Segmentation of park development into two (2) segments will be permissible with respect to the southern edge of China Basin Channel Park and Mission Bay Green if the following items are submitted upon application for Final map approval for the subdivision will which include

the first park segment:

- Schematic design plan for development of the entire park or open space area of which the initial segment is a part;
- Irrevocable offer of dedication to City of any Project Sponsor-owned lands (and/or executed license for Port property where appropriate) included within the park or open space area of which the initial segment is a part.

Interior parks will be framed by building forms, in recognition of the formal character of those park spaces. Therefore, parks will be developed concurrently with development of adjacent parcels or parcels across neighborhood streets from the park (i.e., not across Third Street). If one subdivision ends at a park edge, development of the next subdivision within that residential neighborhood will begin along the park edge to enclose that park edge with buildings.

b. Infrastructure

There are three primary types of infrastructure planned for Mission Bay:

1. Basic subdivision infrastructure

This includes the typical frontage improvements associated with development including such items as streets, water and sewer mains, street lighting and landscaping and storm drains. These improvements will be included in development plans for each Final Map area.

2. Project-serving infrastructure and facilities

These are improvements that provide benefits to the entire Mission Bay area. Examples of these improvements include the cisterns, high pressure water system, pump station, open space landscaping, community facilities and bridges. There are two sub-categories of this tier:

- those improvements that will be built as part of development of a surrounding subdivision (e.g., a park);
- those major improvements that are not necessarily (or solely) dependent upon development of a given subdivision and may be associated with external infrastructure systems (e.g., bridges, I-280 stub demolition).

The following Principles for Plan Implementation specify the relationship between construction of project-serving infrastructure and the sequencing of development. Generally, a given project-serving improvement item will be required as a condition of Final Map approval when:

- Development surrounding a project-serving infrastructure site occurs:
- Certain project development thresholds are achieved, as specified in these Principles for Plan Implementation (e.g., the cultural center which must

be built when 2,000 residential units have Certificates of Occupancy), or
- Larger infrastructure components are completed which then require completion of other infrastructure components (e.g., Owens Street Bridge should be constructed to link Owens Street to King Street).

3. Linked infrastructure

Linked improvements may be either basic subdivision or project-serving infrastructure required as a condition of a Final Map approval to be completed or otherwise secured ahead of the Project Sponsor's sequencing of subdivisions and associated development activity. There are two sub-categories of linked infrastructure:

- Those improvements required or that may be required to satisfy these Principles for Plan Implementation when non-contiguous subdivisions are approved. This category of improvement would be defined at the time of Final Map approval and would depend upon the need to provide logical connection between areas of development (e.g., a street extending across an undeveloped area).
- Those improvements that extend beyond a subdivision area that could be interrupted by a delay in adjacent subdivision or development activity (e.g., completion of an infrastructure component partially within an approved subdivision).

In order to accommodate the Project Sponsor's desire for flexibility in development sequencing, it is not possible at this time to identify the infrastructure which will be necessary to link various neighborhoods as they are developed. Therefore, the City has reserved the discretion to impose such infrastructure requirements as a precondition to Final Map approval, subject to the Development Agreement, the Master Tentative Map and these Principles for Plan Implementation.

For both project-serving and linked infrastructure, as Final Maps are approved, a proportionate share of the cost of completing project-serving and linked infrastructure must be secured in order to ensure construction per the linkage and sequencing principles, as provided in the Development Agreement.
Improvements which are partial implementation of an overall final system will be constructed to those standards applicable to the overall system, (e.g., high pressure water system, sewers). Such improvements will be constructed to complete the portion of the system of which they are a part (e.g., loops).

As reflected in the Development Agreement, funding for infrastructure and facilities within Mission Bay will be the responsibility of the Project Sponsor, future landowners and developers and the City of San Francisco. It is presently expected that most if not all subdivision-related and project-serving infrastructure required of the Project Sponsor in the Development Agreement and Master Tentative Map will be constructed by the Project

Sponsor and dedicated to the City during the development process. More specific principles and requirements for streets, bridges, transit, rail and utilities are described below.

a. Streets

The Mission Bay Plan will entail the construction of almost nine (9) miles of new or reconstructed streets. The major streets (those north of China Basin Channel, Third, Fourth, Sixteenth, Owens and China Basin Streets) will remain generally in their existing rights-of-way. All other streets will form new public rights-of-way.

The completion of the entire length of streets which serve the plan area is desirable. The following principles balance this objective against the desire of the Project Sponsor to minimize front-end costs where feasible.

Streets and any required subsurface improvements underlying such streets which are necessary to serve the area covered by a Final Map, including those that may be outside the Final Map's borders, will be improved to City standards prior to recording the Final Map, or such improvements must be secured through an Improvement Agreement as provided in the Subdivision Code. Construction of new streets and reconstruction of existing streets will be completed in a timely manner in order to maintain acceptable levels of service along major streets.

Each residential subdivision will face on fully developed streets. Any development will require at least two means of access at all points, i.e. there will be no dead-end streets on which development must rely for emergency, worker or resident access.

Though interim or limited access is pr

It is desirable to avoid segmented, unconnected portions of the same street. Completing the connections of a street independent of other development may be necessary when a street is being constructed in phases, as part of developing subdivisions which begin at opposite ends of that street. In such situations, funds for remediation of hazardous materials and construction of the entire street will be fully secured (from all subdivisions served by the street) when Final Maps have been approved which include 50% of the street length.

Secondary streets within Mission Bay will form connections with the major roadways that are planned. When a street is built from only one direction and is planned to connect later with a major roadway (e.g. Third, Sixteenth, Owens, Channel and Mariposa Streets) funds for hazards remediation and construction of the connection with the primary roadway will be fully secured when Final Maps have been approved which include 50% of the street length.

Certain roadways are essential to the design character and circulation system of Mission Bay, e.g., King Street, Long Bridge, Third, Sixteenth, Channel, Channel Green, Mission Bay/Michigan and Owens Streets. The construction of each of these streets, except King Street and Owens Street (see below), will be secured on a proportionate basis from all

Berry Street will be constructed when the site is available (following the extension of CalTrain) and following remediation of any hazardous materials on the 7th and Townsend public facilities site, provided that King Street has already been completed.

subdivisions that they serve, with each street fully secured when Final Maps have been approved which include 50% of the street length. Reconstruction of the existing streets within the plan area (e.g., Third and Sixteenth Streets) will be fully secured once Final Maps have been approved which include 50% of the abutting parcel frontage.

King Street, the major northern roadway within the plan area and a connector to the proposed I-280 freeway ramps, will be constructed by the City through grant funding, with the Project Sponsor providing the local match through donation of land for an enlarged right-of-way. The City will work with CalTrans to cause Caltrans' construction of I-280 ramps to King Street.

~~Berry Street will be constructed following the relocation of CalTrain from the Seventh and Townsend Streets public facilities site and remediation of any hazardous materials on the site, provided that King Street has already been completed.~~

Owens Street, the major western roadway within the plan area, will be constructed between Sixteenth Street and the Channel as part of the first subdivision which has frontage on Owens north of Sixteenth Street. If, however, King Street has not been completed at that time, then the Project Sponsor will need only to provide security for the construction of Owens Street. In that case, Owens Street will have to be constructed when King Street was completed.

Channel Street may have the number 30 Stockton routed on it, depending on the configuration of MUNI, Metro East, and the CalTrain extension.

~~Channel Street will be constructed in order to accommodate the MUNI #30 Stockton trolley coach, at such time as CalTrain is relocated.~~ Alternatively, a temporary route may be provided which uses a portion of the existing de facto "Channel Street".

At such time as

~~If~~ the CalTrain is extended downtown, the bus platform area proposed for the Seventh and Channel Streets site may be developed as a street connection between Owens and Seventh Streets concurrent with the development of abutting parcels, provided that it is not necessary to construct it as an overpass.

Sixteenth Street will be resurfaced as necessary in order to accommodate the MUNI #22 Fillmore trolley coach, at such time as the #30 Stockton is extended into Potrero Hill and the #22 Fillmore is relocated to Sixteenth Street.

China Basin Street will be reconstructed concurrently with construction of Mission Bay Green.

b. Bridges

The Project Sponsor must apply for and pursue permit approval in a timely manner and with all due diligence in order that all permits and approvals will be granted to permit:
(1) the Owens Bridge construction to begin no later than: (a) the completion of both Owens and King Streets, or (b) permits have been obtained for 2.5 million square feet of office or commercial/light industrial development, whichever comes first; and

The eastern boundary of Mission Bay Green and the configuration of China Basin Street to accomodate parking and turnaround areas for boat trailers will be 15 further defined in the future through a planning process involving affected parties including the Bayview Boat Club, Mariposa Yacht Club, Olive Oil's, Royal Charter Marine, The Ramps, B & I Boats, and Mission Rock Resort. Existing water access and recreational activities should be included when design and development of the park are imminent. An increase in parking or turnaround areas will be considered part of Mission Bay Green.

(2) the Pedestrian Bridge over the Channel will be constructed no later than (a) appropriate sequencing with adjacent development, or (b) the date on which Certificates of Occupancy have been issued for 2.4 million square feet of office space, whichever occurs first.

The City will improve the Third and Fourth Street bridges through grant funding, with the Project Sponsor providing the local match.

c. Transit

The City will construct the MUNI Metro yard, construct the MUNI Metro extensions and provide rolling stock and service equipment and install overhead wires and provide rolling stock for the extensions of MUNI trolley coach lines.

d. Rail

The Project Sponsor will maintain railroad connections to Piers 48-50 adjacent to Mission Bay and to Pier 80 to the south, throughout the development of Mission Bay.

e. Utilities

Construction of utilities within Mission Bay will generally be regulated through the Subdivision Map approval process. The Master Tentative Map will establish the basic pattern of streets and blocks within Mission Bay. This application will also set forth a master plan for each utility system. This will serve as the framework for implementing utility systems. Subsequent Final Maps will be the means for identifying the necessary utility construction for each new area.

District heating and cooling remains an option within Mission Bay. This option will be reviewed at five year intervals for its cost effectiveness and overall desirability.

The utility systems planned for implementation are described in Section 3 of this Plan (pp. 3-103 to 3-104), and will include the following:

- Water System
  - Low Pressure Water
  - High Pressure Water
  - Cisterns
  - Suction Inlets
- Combined Sewer
- Electric Power
- Gas Supply
- MUNI Electricity
- Street Lighting
- Cable Television Facilities
- Telephone
- Traffic Signals, Police and Fire Alarms*

c. Community Facilities District

The Mello Roos-Community Facilities Act of 1982 (Government Code Section 53311 et seq.) allows local governments to establish Community Facilities Districts to fund public improvements and additional services necessary to support development. One or more Community Facilities District (CFD) may be used to finance a broad range of infrastructure and facilities plus provide the City with security for infrastructure improvements. Improvements include those which benefit property in a general way (e.g., a fire station) as well as those benefiting specifically identified parcels (e.g., the street frontage). Since it is anticipated that almost all of the infrastructure within Mission Bay will be constructed by the Project Sponsor, the CFD will provide the City with contingent funding source and the developer with tax exempt financing, if desirable. The proposed Mission Bay CFD would:

- Provide low-cost financing for public improvements.
- Assure that public improvements are made in a timely manner.
- Assure that adequate public improvement funding is available.
- Assure adequate street linkages between development nodes.
- Provide potential source of operations and maintenance funds.

The Mission Bay Community Facilities District may authorize funding of public improvements, community facilities and remediation of hazardous materials on the sites of such improvements or facilities to the extent permitted by law and as provided in the Mello-Roos Community Facilities District Agreement.

* Note: The existing Police and Fire alarm system will be augmented with new facilities in locations determined by planned new land uses.

3. Hazardous Materials Remediation

Hazardous materials investigation and, as needed, remediation (mitigation through treatment, containment or removal) will be necessary prior to the development of any portion of Mission Bay. Currently, Article 20 of the Public Works Code requires completion of any necessary remediation at a building site before the City will accept applications for building permits for development of the site, but does not require investigation or remediation of areas surrounding the building site. The Hazardous Materials Investigation and Remediation Program provided for in the Development Agreement is in addition to the requirements of Article 20.

The Development Agreement provides that the entire Mission Bay plan area will be subject to an areawide survey to detect surface hazards before any development authorization such as Final Maps or building permits are granted. In addition, in-depth site specific investigation for hazardous materials in Mission Bay is a necessary prerequisite for development authorization. To carry out the site specific investigation, the Plan will be divided into specifically delineated sub-areas, known as Investigation and Remediation ~~Remedial~~ Plan Development Areas (IRPDA's).

The Development Agreement also provides that, prior to approving any development activity (e.g., approving a Final Map or Building Permit) within any given sub-area, completion of an in-depth investigation will be required of (1) the entire sub-area; (2) a buffer zone around the sub-area; and (3) any areas outside the IRPDA required for related infrastructure. Remediation of the development area and buffer zone will proceed in accordance with a plan and schedule approved by the appropriate State regulatory agency. ~~For further~~ information about ~~this~~ the Program ~~see~~ is provided in an ~~Exhibit~~ exhibit to the Development Agreement.

4. Managing the Transition

To ensure the economic vitality of new housing and workplaces in Mission Bay and the attractiveness of new parks and open space, the transition from older to new uses will be carefully managed. ~~Ongoing~~ Compatibility between existing industry, maritime, construction activities and new uses will be monitored. There will be ongoing industrial and maritime activities in the plan area to be maintained until they are replaced and/or relocated. The existing Mission Creek Harbor Association houseboats and recreational boats will be ~~have to be~~ provided with access and utility services for the duration. Neighboring Port operations on Piers 48 and 50 and the adjacent backland will continue to function properly. These principles for managing the transition are not intended to diminish in any way the continued ability of the Port to maintain its lands in maritime-related activities.

remaining

a. The Extent of Change

Substantial alterations will be made to the current Mission Bay street system and there will be significant expansion and extension of the plan area utility systems. Some of the streets in Mission Bay, including King, Third, Fourth, Fifth, Sixth, Owens, Sixteenth and China Basin Streets will remain but will be improved. Internal to the central neighborhood though, most of the existing streets will be replaced with a new street grid. These street improvements will be made on an incremental basis, tied to subdivision development phases and guided by the Principles for Plan Implementation stated in Section C of this chapter. Access to new and existing development will be critical for emergency, livability and economic reasons. The transition from the old to the new street system will be managed at every step of plan implementation.

The implementation of the utilities systems previously described will result in substantial expansions of existing systems. As Figures 4 and 16 in Chapter 3 show, existing systems will run primarily in the existing major rights-of-way; new systems will expand this network into almost all Mission Bay street rights-of-way. All of these except MUNI trolley and MUNI Metro lines will be placed underground (except substations), necessitating close coordination of street and utility construction. In particular, the transition to the new utility systems poses difficulties of maintaining service to existing uses. The subdivision process will ensure continuity of service for new and existing site users.

Equally significant changes will take place as new land uses replace older uses. The construction of new housing and workplaces, with all attendant trucks, construction equipment, noise, dust and congestion will dominate each newly developing area, potentially altering the character of older industrial zones and impacting new nearby residential or workplace sites. The subdivision process will ensure that the construction on new sites is completed in an efficient manner while allowing surrounding housing or workplaces to thrive.

Ongoing heavy industrial activities such as truck hauling and loading/unloading will be buffered from new uses, especially housing, to allow residents to enjoy their neighborhood and homes. Where proposed development abuts industrial uses slated for later redevelopment, it must be demonstrated that nearby industrial operations will not create a health or safety hazard for new residents or workers. However, vacating viable industrial sites long before the land is needed is discouraged.

All of these changes entail lengthy, complex construction processes that will disrupt the flow of traffic and commerce and the tranquility of neighborhoods. Construction phases will be initiated by hazardous materials site investigations and, as necessary, remediation. The Hazardous Materials Investigation and Remediation Program established a process which will ensure safety during the transition phases. Remediation activities will be isolated from the community to the greatest degree possible.

Development Agreements

These transitional conditions will affect all Mission Bay planned land uses that are developed in early and mid-range phases as well as the site's older uses. The following guiding Principles for Plan Implementation are intended to ensure that during the transition, steady successful implementation of new uses can proceed in a timely manner, while retaining existing uses as long as reasonably possible.

b. Land Use Construction and Compatibility

Land use compatibility is a key transition issue. Industrial, transportation-related and maritime activities dominate the plan area at present. These activities have external effects on surrounding land uses and could adversely ~~effect~~ affect new housing and workplaces. Railcars running through the plan area generate unusual noise levels and vibration and can block vehicular and pedestrian circulation. Truck traffic associated with all of these uses can slow traffic flows, generate noise, inhibit pedestrian circulation and block circulation routes when using truck docks. Tall floodlighting that protects storage areas can be too bright for nearby housing. Materials processed, stored or shipped to and from such sites could pose health and safety hazards for area residents or workers. Industrial workplaces are rarely maintained to the aesthetic standards that make their appearance compatible with new workplaces, housing or parks. It is important to assure that all of these external effects do not adversely affect new development during the transition from older to newer land uses. At the same time, the existing businesses provide a valuable economic function for the City, including both the services and jobs they offer. They should be continued as long as possible provided impacts on neighboring new land uses can be successfully mitigated.

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The selection of which areas to develop, especially in early phases, will take into account the potential for incompatible land uses. Initial development areas may be located (a) near existing amenities such as China Basin Channel where open space improvements will create favorable edge conditions and (b) away from existing land uses likely to adversely affect new development. Initial development phases will include streets or open space on the Final Map area perimeter that will serve as a buffer next to potentially adverse land uses.

Where development in one subdivision abuts industrial uses which will not be redeveloped until later subdivisions, the Project Sponsor will demonstrate that: (a) the industrial operations on adjacent parcels within Mission Bay will not create a health or safety hazard for project users or unduly interfere with enjoyment of the facilities; and (b) the industrial uses within Mission Bay will be appropriately screened and fenced to the extent feasible. The Project Sponsor will, to the extent feasible through its leases of property for existing uses within the plan area, ensure that existing industrial uses, by reason of their nature or manner of operation, do not create conditions that are hazardous, noxious or offensive through emission of odor, fumes, smoke, cinders, dust, gas, vibration, glare, refuse, water-carried waste, or excessive noise (per City Planning Code Section ~~202 (c)~~ 803(6)(2).

While new development is being constructed, the construction process will be managed to avoid unnecessary impacts upon surrounding land uses. Typically, on-site development requires and encumbers use of public rights-of-ways but the extent to which public streets are used for site construction will be minimized.

City requirements regarding the permitted timing of major construction activities, such as driving pile foundations, will be adhered to as should other related construction restrictions, such as dust reduction.

After new developments are completed, neither surrounding uses nor construction of new uses will adversely affect their function. The earlier Principles for Plan Implementation will assist in establishing compatibility, by requiring groupings of development phases and new housing construction with that of surrounding parks. On the perimeter of residential development, other methods will be employed. Compatibility will be provided if buffers are developed between potentially conflicting uses. On the perimeter of housing or commercial-light industrial developments adjacent to older land uses, either fully improved, landscaped streets or fully improved parks or open space will be required as a buffer. Fully improved streets will include the landscaped sidewalks and setback areas called for on both sides of the street, except on those major project-serving streets (King, Third, Sixteenth and Owens Streets). The timing of street improvements on these streets will be subject to the sequencing principles stated earlier.

When older land uses in the plan area continue in operation across a newly improved street from new housing, opaque fencing or other screening will be required if, by agreement between the City and the Project Sponsor, the building(s) or sites warrants it. Fencing will also be required where housing or workplaces are located next to an unimproved public facility site, to screen public uses, restrict access to potentially dangerous conditions and prevent unauthorized access.

In addition to mandated hazardous remediation required in and around a Final Map area, to ensure that new Mission Bay residents and workers are not exposed to hazardous materials, the City will prepare and maintain a current map of sites in Mission Bay where hazardous materials are stored or used. All existing industries within Mission Bay will be required to

comply with all laws governing the storing, handling, processing or shipping of any hazardous materials.

For as long as existing businesses remain in the plan area, they will maintain the appearance of their structures and sites, in a condition at least as attractive as their condition at the time of plan approval. Deterioration of the appearance of buildings, parking and any accessory uses will not be permitted.

No existing or additional lighting in the plan area will be permitted if that lighting is used at times or in a manner that has a direct adverse effect on adjacent housing. Wherever feasible, access to ongoing industry for trucks and other vehicles should be separated from new access routes. Any excessive dust, noise or smoke-generating activities on industrial sites may be restricted to hours compatible with new nearby housing.

c. Street Construction

Streets should be completed to ensure that neither new or existing land uses become isolated during the transition. Improvements of the street pattern of existing and new streets should be managed to allow for separation of residential areas from the traffic generated by existing industrial uses. Access to and from ongoing construction and existing commercial and industrial uses should be routed to minimize disruption of new residential areas.

Street connections to either major existing arterials or nearby development areas should be required as part of the subdivision process to ensure adequate access to, from and between new and existing areas. Direct street connections should provide a link between noncontiguous housing areas or between new housing and existing major streets to avoid isolated residential enclaves. Elimination of any existing street will only be approved by the City so long as it can be shown that such elimination does not inappropriately isolate any existing or new development. Street access and utility service to and from the Port areas and the Mission Creek Harbor Association leasehold must be maintained at a level generally consistent with existing service levels until the final streets and utilities improvements are completed.

Street improvements during the transition will not unnecessarily disrupt nearby land use activities. Primary streets that serve as part of the Central Waterfront area's circulation system will be constructed and maintained to serve area needs in a timely manner.

At all times, the transitional street system will allow emergency access to all existing or new Mission Bay structures. Streets adjacent to developments will be fully developed to accommodate adequate levels of vehicular service, including temporary or permanent bus service. Streets serving development parcels will be fully improved to provide access to all points of ingress and egress to new housing or workplaces. Existing and improved streets will be maintained free of construction obstructions to the extent ~~possible~~ feasible to allow for the

smooth flow of traffic throughout the transition.

All the conditions of the existing streets within the plan area will be brought up to the quality of new streets in a timely manner to contribute to the overall improvement of the neighborhood and to handle required traffic volumes.

Use of temporary vehicular routes for construction access only across undeveloped parcels will be permitted so long as such use does not adversely affect the livability or function of nearby land uses. Such temporary roads will be subject to Department of Public Work approval as to ingress and egress to developed streets. They will only be used until such time as permanent rights-of-way can feasibly be used for construction access. Dust, noise and any other disturbances associated with use of a temporary route will be minimized.

Temporary transit routes will be permitted on streets not designated for such traffic except where newly developed adjacent uses would be adversely affected. Immediately upon completion of streets designated for transit routes, temporary transit routes will be relocated to their permanent location.

Temporary road surfaces may be used during the construction period once underground infrastructure is in place. If final road surfaces are constructed at the outset, inspection and necessary repairs must occur following construction phases.

Every effort will be made in each phase of development to protect and promote the neighborhood and workplace setting for which the Mission Bay Plan calls. The provision of safe temporary routes and attractive and functional permanent streets should contribute substantially to Mission Bay's character.

d. Utility Systems Construction

New or improved utility systems will be constructed in an expedient manner to ensure prompt provision of new service and minimum disruption of ongoing service. Particular attention will be given to the needs associated with police and fire emergency services within this developing, transitional area, including emergency water supplies and alarm systems.

Construction of those utility systems that will be placed within street rights-of-way will not cause delays to completion of street improvements.

Although it is desirable that there are no interruptions to utility services for existing uses, it is likely that some temporary interruptions will occur. Utility system construction will be performed to minimize the duration, number and extent of any interruptions. It is important that existing housing and workplaces, including the port and industrial activities not within the plan area but served by the area's utility systems, are able to function at all times.

If There are two alternatives to replacing the freight rail track. i
the Port, PUC and MUNI will seek funds to build a rail freight br
across Islais Creek to connect Piers 94-96 to 80. Rail freight
access will continue north via Illinois Street to Mariposa Stree
and then a new track will be built on China Basin Street to Piers
48-50.

Concurrent construction of segments of project-serving utility systems outside but adjacent to a Final Map area will be required if the construction of adjacent segments at a later date would seriously impact or disrupt service to functioning land uses. The City and Project Sponsor will agree during preparation of a Final Map upon those project-serving utility components, if any, that will be a part of each Final Map area. Project-serving infrastructure may be required when other larger infrastructure elements outside a given Final Map area are completed, e.g., bridges connecting major streets.

Linked utility system components, such as those that will be a part of street extensions, may be required when they are needed to achieve the sequencing principles for non-contiguous subdivisions. Such components may also be required to ensure completion of utility systems to avoid delays in the availability of utility service to a Final Map area.

The termination of existing utility hookups will be conducted in a manner which will preclude future hazards or other malfunctions.

e. Rail Construction

At present, freight railroad tracks serving Piers 48, 50 and 80 run through the proposed MUNI Metro Yard in Mission Bay to Sixteenth Street and then continue north on Illinois Street.

These freight tracks ~~must~~ will be redirected to bypass the MUNI Metro Yard, by running alongside the CalTrain tracks until north of Sixteenth Street and then reversing direction to turn east within Sixteenth Street until the tracks reach the Illinois Street segment. The rail connection to Piers 48, 50 and 80 east of Third Street will be either via the existing Illinois Street segment or will be relocated~~, on an interim basis,~~ to continue along Sixteenth Street east of Third Street connecting with a proposed China Basin Street rail line. The China Basin Street/Sixteenth Street connection would allow rail traffic to proceed north and south~~, at that intersection.~~ Rail access to Piers 48, 50 and 80 must be available at all time throughout project development.

To do this, China Basin Street would have to be wide enough (up to 5 feet wider than 44 feet) to accomodate a freight track and a run-around track on it.

~~Alternative solutions may be possible in the future to relocate the rail line from Sixteenth Street west of Third Street, and either Sixteenth Street east of Third Street or Illinois Street, depending upon the interim configuration, to a location outside of the plan area which would permit connection to the proposed China Basin Street rail line, and ensure service to Piers 48, 50 and 80.~~

~~During the time that~~ If the rail line is re located ~~on~~ To Sixteenth Street, the Port and/or the City shall impose reasonable conditions on proposed adjacent development to ensure compatibility between the rail traffic and the adjacent uses, including, but not limited to, conditions relating to noise insulation and design features, and setbacks or buffer areas. Conditions ~~will~~ also be may imposed with respect to any relocation of the existing rail line to ensure safe crossings and appropriate curvature and grading, and to protect pedestrians from rail traffic.
by the Southern Pacific Transportation Company Chief Engineer, Port Engineer, and California Public Utilities Commission

If the Islais Creek rail bridge is n , will not be completed by the time the rail freight tracks must be removed from the MUNI metro yard site, then

f. Business Relocation

It is in the City's overall interest to retain and expand industrial and, in particular, maritime-related activity within the Central Waterfront. The City desires to support the retention and to encourage the growth of firms which strengthen or complement the maritime operations of the Port of San Francisco, including firms which provide ancillary services to the Port, such as trucking, warehousing and distribution.

A number of industrial and maritime-related businesses will be displaced by the planned Mission Bay development. The City desires to provide some assistance to help relocate these firms within San Francisco. A Business Relocation Plan is included in Section F of this chapter.

While recognizing the City's limited resources and relative inability to counter economic/market location decision factors, the City will assist industrial and maritime-related firms that would be displaced by Mission Bay to relocate within San Francisco, as follows:

1. The City will identify and maintain a listing of businesses within the Mission Bay Plan area desiring to relocate in San Francisco, including square footage occupied, number of employees, lease rates, ability to absorb rent increases;

2. The City, through the Mayor's Office of Business and Economic Development, will use its best efforts to identify and maintain an inventory of appropriate sites for relocation, including Port and other publicly-owned properties, and will provide information and referrals to Mission Bay tenants as requested; and

3. The Mayor's Office of Business and Economic Development will identify state, federal, local or other sources of below market-rate financing for relocation and basic capital improvement costs, will disseminate information concerning such programs, if any, and assist targeted businesses to apply for such funds as requested.

E. Which Implementation Measures Contribute to the Achievement of Mission Bay Objectives and Policies

Each implementation measure will contribute part of the guidance, regulation or direction needed to integrated development consistent with the Plan. The following matrix identifies which implementation measure(s) contribute to achieving each objective or policy. All of the Objectives and Policies are listed in the lefthand column. Across the top of the matrix the key implementation measures are listed. The matrix is then filled in with "x's" wherever a measure helps to fulfill an objective or policy.

Given the broad scope of Objectives, they typically will be effectuated by all implementation measures; therefore for most Objectives, all boxes are checked. Policies, on the other hand, are more specific and may only be effectuated by one or two implementation measures.

Generally, the Master Plan column is checked each time the City's Master Plan or Mission Bay Specific Plan policies address the topic. In most cases, the Specific Plan addresses the topic in detail. The Development Agreement column is checked whenever a commitment spelled out in the Agreement will make it feasible to implement the policy. The City Planning Code column is checked where Specific Plan policies are implemented through regulations of land use and development. The Zoning Map column is checked whenever the proposed locations and classifications of land uses will be implemented in part by the City Zoning Map. The Land Exchanges/License column is checked when a policy calling for providing sites for certain land uses, such as new streets, open space or affordable housing, is made possible by the land exchange(s) or License. The Tentative Map column is checked whenever land use and infrastructure patterns and regulations on the Tentative Map facilitate policy implementation. The Subdivision Code column is checked when the subdivision process would facilitate implementation of the objectives and policies of the Plan.

Implementation Measures

	Specific Plan	Development Agreement	CP Code	Zoning Map	Land Ex./ License	Tentative Maps	Subdivision Maps
OVERALL LAND USE AND DEVELOPMENT PROGRAM							
OBJECTIVE 1: CREATE A VARIETY OF USES IN MISSION BAY WITH HOUSING AS A HIGH PRIORITY.	X	X	X	X	X	X	
Policy 1: Provide new housing in areas most suitable for residential occupancy.	X	X		X	X	X	
Policy 2: Phase proportional increments of housing and commercial uses and balance development with open space.	X	X				X	X
Policy 3: Integrate retail and personal services into commercial and industrial areas and provide cultural facilities to serve Mission Bay businesses, residents and working populations.	X	X	X	X	X	X	
Policy 4: Provide mixed-use developments at appropriate locations.	X		X	X		X	
Policy 5: Distribute open space throughout the plan area to complement other land uses.	X			X	X	X	
Policy 6: Provide for a variety of uses at the water's edge to enhance the viability and aesthetic quality of adjacent land uses while providing maximum access to and use of the shoreline.	X		X	X		X	
Policy 7: Provide adjacent uses that enliven and activate public open space.	X		X	X		X	
URBAN DESIGN							
Urban Pattern							
OBJECTIVE 2: EMPHASIZE IN MISSION BAY THE CHARACTERISTIC SAN FRANCISCO DEVELOPMENT PATTERNS WHICH GIVE ITS NEIGHBORHOODS IMAGE AND MEANS OF ORIENTATION.	X		X	X		X	
Policy 1: Integrate Mission Bay with surrounding districts and the Bay.	X		X	X	X		
Policy 2: Protect major views to and from Mission Bay, using street view corridors, open space and tiered ding massing.	X		X	X	X	X	
cy 3: Create visual and physical access to San Francisco Bay and the China Basin Channel.	X		X	X	X	X	
Policy 4: Connect Mission Bay Streets to the adjacent existing street patterns wherever feasible.	X	X			X	X	X
Policy 5: Recognize that variety and contrast in an urban setting adds complexity and excitement.	X		X				
Policy 6: Recognize that buildings and open spaces seen together will create the character of Mission Bay.	X		X	X		X	
OBJECTIVE 3: CREATE DISTINCTIVE VISUAL CHARACTER FOR THE MISSION BAY AREA THAT IS COMPATIBLE WITH NEARBY AREAS AND AN ENHANCEMENT TO SAN FRANCISCO.	X		X	X		X	X
Policy 1: Create a hierarchy of large-scale to small-scale open spaces and landscaping that provides visual definition for Mission Bay.	X			X		X	
Policy 2: Encourage development of Mission Bay in a manner which results in a new, attractive view element as seen from neighboring areas.	X		X	X		X	
Policy 3: Achieve high quality design for buildings and landscaping.	X		X				
Policy 4: Avoid extreme contrasts in color, shape and other characteristics which will cause new buildings to stand out in excess of their public importance.	X		X				
Policy 5: Promote the installation and maintenance of landscaping in public and private areas that is attractive from long distances and nearby.	X	X	X			X	X
Conservation							
OBJECTIVE 4: TAKE ADVANTAGE OF THE UNIQUE FEATURES OF THE MISSION BAY SETTING.	X		X	X	X	X	
Policy 1: Reinforce the bowl-like character of Mission Bay that is created by the surrounding natural hillsides and elevated structures.	X		X	X			
Policy 2: Orient Mission Bay views and vistas to San Francisco Bay, China Basin Channel and to Downtown and Potrero Hill.	X		X	X	X	X	
Policy 3: Increase the visibility of major destination areas and places by providing orientation through planned urban design of buildings and open space.	X		X	X		X	
Policy 4: Emphasize the special nature of Mission Bay by orienting development and open space around waterways and water features and bringing open space into development areas to maximize enjoyment of the water.	X		X	X	X	X	
/ 5: Incorporate and augment appropriate elements reflective of the tidal ecology of Mission Bay.	X			X		X	
icy 6: Echo the original geography and history for the location and naming of new streets, parks and public buildings.	X		X	X		X	

Implementation Measures

	Specific Plan	Development Agreement	CP Code	Zoning Map	Land Ex./ License	Tentative Maps	Subdivision Maps
OBJECTIVE 5: PRESERVE CONTINUITY WITH MISSION BAY'S PAST AND PRESERVE NOTABLE LANDMARKS AND AREAS OF HISTORIC, ARCHITECTURAL OR AESTHETIC VALUE.	X	X	X	X		X	
Policy 1: Respect the character of older development nearby in the design of new buildings.	X		X				
Policy 2: Retain and feature the Third and Fourth Street drawbridges.	X	X	X	X		X	
Policy 3: Preserve Fire Station 30.	X	X	X	X		X	
Policy 4: Incorporate the existing houseboat community in the new development.	X	X	X	X		X	
New Development							
OBJECTIVE 6: RELATE THE SCALE OF NEW DEVELOPMENT TO THE ADJACENT WATERFRONT AND TO EXISTING DEVELOPMENT.	X		X	X		X	X
Policy 1: Reduce building heights for new development within Mission Bay as development approaches the Bay.	X		X	X			
Policy 2: Design and locate new development to preserve significant views from neighboring areas.	X		X	X		X	
Policy 3: Promote harmony in the visual relationships and transitions between new and older buildings.	X		X				
Policy 4: Provide a variety of building heights and avoid an overwhelming or dominating appearance in new construction.	X		X	X			
Policy 5: Promote design and construction of building forms that will respect and improve the integrity of open spaces and other public areas.	X		X	X			
Policy 6: Promote building forms that will enhance access to sunlight.	X		X	X			
RESIDENCE							
Neighborhood Environment							
OBJECTIVE 7: DEVELOP NEW RESIDENTIAL NEIGHBORHOODS WITH THE CHARACTER AND QUALITY OF TRADITIONAL SAN FRANCISCO NEIGHBORHOODS.	X	X	X	X	X	X	X
Policy 1: Create a system of streets, lanes and blocks comparable to the size of traditional San Francisco streets, alleys and blocks.	X	X		X	X	X	
Policy 2: Create a pattern of buildings built to the front property line so that streets and public places are generally defined by building facades.	X		X				
Policy 3: Provide on-street parking in the manner typical throughout the City. Limit the amount of curb cut and garage door access to off-street parking in housing blocks.	X		X				
Policy 4: Orient housing entries to the street and screen structured parking at-grade with perimeter housing units.	X		X				
Policy 5: Provide higher-density, low-rise woodframe construction where possible and appropriate.	X		X	X			
Policy 6: Locate commercial features with the potential to attract many visitors in areas that can accommodate and benefit from high activity levels.	X		X	X			
Policy 7: Integrate commercial uses into the residential areas in mixed-use buildings on neighborhood commercial streets and permit artist live/work space when appropriate.	X		X	X			
Policy 8: Use outdoor common areas, rather than internal corridors, for horizontal circulation in residential areas, when feasible.	X		X				
Policy 9: Include adequate public improvements, services and amenities in all residential areas.	X	X	X		X	X	X
OBJECTIVE 8: DEVELOP A PATTERN OF NEIGHBORHOOD-SCALED OPEN SPACES TO SERVE RESIDENTS.	X	X	X	X		X	X
Policy 1: Maintain a portion of each residential block or parcel for private open space, with contiguous mid-block open spaces as appropriate.	X		X	X		X	X
Policy 2: Locate family units in close proximity to public open space.	X	X	X	X		X	X
Policy 3: Incorporate frequent sunlit public squares and mini-parks in block patterns and allow for the potential for open space features within lanes.	X		X	X		X	X
Policy 4: Provide for small scale and intimate private and semi-private open spaces in residential areas.	X		X	X		X	X
OBJECTIVE 9: DEVELOP HOUSING THAT ENHANCES THE HEALTH AND SAFETY OF RESIDENTS AND VISITORS.	X		X			X	X
Policy 1: Provide for building security through street orientation of housing, housing design and adequate street lighting.	X		X				

Implementation Measures

	Specific Plan	Development Agreement	CP Code	Zoning Map	Land Ex./ License	Tentative Maps	Subdivision Maps
Policy 2: Provide for pedestrian and open space security through visibility of public spaces and avoid obscured spaces with little sense of proprietorship.	X		X				
Policy 3: Protect residential areas from the noise pollution and physical danger of excessive traffic.	X		X	X		X	X
Policy 4: Provide buffering for residential properties when heavy traffic cannot be avoided.	X						
Housing Characteristics							
HOUSING DENSITY							
OBJECTIVE 10: INCREASE SUBSTANTIALLY THE CITY'S SUPPLY OF HOUSING IN A MANNER COMPATIBLE WITH ADJACENT NEIGHBORHOODS AND OTHER USES WITHIN MISSION BAY.	X		X	X	X	X	
Policy 1: Establish housing density parameters that take into account the size and diversity of the dwellings, and the space needed for open space, parking, light and air requirements.	X		X	X			
HOUSING TYPES							
OBJECTIVE 11: PROVIDE A MIX OF HOUSING SIZES AND TYPES THAT WILL ASSIST IN MEETING THE CITY'S DIVERSE HOUSING NEEDS AND CONTRIBUTE TO THE DIVERSITY OF MISSION BAY.	X	X	X	X			
Policy 1: Achieve the desired housing program with a variety of unit and building types.	X	X	X	X			
Affordability of Housing							
OBJECTIVE 12: PROVIDE HOUSING AFFORDABLE BY A WIDE RANGE OF INCOME GROUPS.	X	X			X	X	
Policy 1: Use City financial powers and resources to reduce the cost and increase the supply of low- and moderate-cost housing.	X	X			X		
Policy 2: Make maximum use of available Federal and State housing subsidy programs to provide affordable housing.	X	X			X		
Policy 3: Use private efforts to provide affordable housing, including the provision of housing sites and infrastructure for public development of entry-level, middle income and senior housing.	X	X			X		
Policy 4: Ensure long-term affordability of low- and moderate-income housing.	X	X					
Policy 5: Integrate mixed-income units throughout Mission Bay housing developments.	X	X				X	
Policy 6: Create opportunities for innovative housing types that minimize construction and infrastructure costs without sacrificing durability and quality of construction.	X	X					
Accessibility of Housing							
OBJECTIVE 13: PROVIDE A WIDE RANGE OF HOUSING CHOICES.	X	X	X	X			
Policy 1: Provide accessible and adaptable housing for the physically disabled and the elderly.	X	X	X				
Policy 2: Provide a range of rental housing and opportunities for home ownership.	X	X					
Policy 3: Provide housing suitable for families with children.	X	X					
Policy 4: Provide housing suitable for persons with varied lifestyles.	X						
Policy 5: Provide housing opportunities for groups with special needs.	X	X					
Policy 6: Promote housing types that can be adapted in the future to serve evolving needs of the population.	X						
Policy 7: Maintain the existing houseboat community within Mission Bay.	X		X	X			
RECREATION AND OPEN SPACE							
An Open Space System							
OBJECTIVE 14: PROVIDE MAJOR OPEN SPACE AREAS AND A VARIETY OF OPEN SPACES ADEQUATE TO SERVE THE MISSION BAY COMMUNITY AND TO AUGMENT THE CITY'S OPEN SPACE NETWORK.	X	X	X	X	X	X	X
Policy 1: Create parks, open space and recreational facilities to serve the needs of Mission Bay residents, workers and visitors of all ages.	X	X	X	X	X	X	X
Policy 2: Provide a major open space area which adds to the citywide open space system and takes advantage of the shoreline location of Mission Bay.	X	X	X	X	X	X	X
Policy 3: Create an open space network which provides walking, jogging and bicycle paths between [illegible]tion and open space areas throughout Mission Bay, and provides connections to citywide pedestrian, [illegible]le and open space systems.	X	X	X	X	X	X	X
Policy 4: Ensure wind protection for public open space where feasible.	X		X				
Policy 5: Provide open spaces that are accessible to the physically disabled and the elderly.	X	X	X				

Implementation Measures	Specific Plan	Development Agreement	CP Code	Zoning Map	Land Ex./ License	Tentative Maps	Subdivision Maps
Policy 6: Orient development and parks, public and private open space, and pedestrian areas to maximize solar access.	X		X				
Policy 7: Enhance parks and open spaces by maintaining view corridors from such areas.	X		X	X	X	X	X
Policy 8: Provide a variety of open spaces to serve neighborhood commercial areas, office, commercial and light-industrial areas within Mission Bay.	X	X	X	X		X	X
Shoreline Open Space							
OBJECTIVE 15: MAINTAIN AND ENHANCE SIGNIFICANT SEGMENTS OF THE CENTRAL WATERFRONT, BAY AND CHINA BASIN CHANNEL SHORELINE FOR PUBLIC ACCESS AND RECREATION.	X	X	X	X	X	X	X
Policy 1: Provide maximum feasible public access along all shorelines.	X	X		X	X	X	X
Policy 2: Maximize the interface between land and water.	X	X	X	X	X	X	
Policy 3: Provide a variety of recreational opportunities along the shorelines accessible to the public.	X	X	X	X	X	X	X
Policy 4: Preserve and enhance the special amenities of the China Basin Channel.	X	X	X	X	X	X	X
Policy 5: Assure that shorelines, natural areas, parks and recreation facilities are accessible to the physically disabled and the elderly.	X					X	X
Recreation Opportunities							
OBJECTIVE 16: DEVELOP PARKS AND OPEN SPACE WITH LANDSCAPING AND DESIGN FEATURES THAT DIFFERENTIATE KINDS OF USE.	X	X	X	X	X	X	X
Policy 1: Provide parks and open spaces for passive and active recreation.	X	X	X	X	X	X	X
Neighborhood Parks							
OBJECTIVE 17: LOCATE PARKS AND OPEN SPACES SO THAT THEY ARE WELL DISTRIBUTED THROUGHOUT MISSION BAY AND TAKE FULL ADVANTAGE OF EXISTING NATURAL FEATURES.	X	X	X	X	X	X	X
Policy 1: Provide suitable open space and recreational facilities within comfortable walking distance of all Mission Bay residences.	X	X	X	X	X	X	X
Policy 2: Provide suitable open space convenient to the working population within Mission Bay and nearby area.	X	X	X	X	X	X	X
OBJECTIVE 18: MAINTAIN AND IMPROVE THE QUALITY OF THE BAY AND SHORELINE AREAS, INCLUDING CHINA BASIN CHANNEL AND ITS WATERS.	X						
Policy 1: Manage the City's combined storm sewer system to avoid unnecessary overflows into China Basin Channel and reduce the adverse effects of such overflows.	X						
COMMERCE AND INDUSTRY							
Office and Commercial-Light Industrial							
OBJECTIVE 19: MAINTAIN AND ENHANCE A SOUND AND ECONOMIC BASE AND FISCAL STRUCTURE FOR MISSION BAY AND CONTRIBUTE TO DIVERSIFYING SAN FRANCISCO'S ECONOMIC BASE.	X	X	X	X		X	
Policy 1: Provide commercial development in Mission Bay complementary to downtown office and retail development.	X	X	X	X		X	
Policy 2: Attract new secondary office, service, research and development activities to Mission Bay in order to add to the economic diversity of San Francisco.	X		X	X		X	
Policy 3: Provide primary and secondary office space with floor sizes and other appropriate incentives that will entice employers of entry-level office workers to locate in Mission Bay.	X		X	X		X	
Policy 4: Improve the viability and attractiveness of Mission Bay as a location for new research and development activity and other service and light industry.	X		X	X		X	
Policy 5: Provide land uses that are compatible with adjacent viable commercial and industrial activity.	X		X	X		X	
Policy 6: Maintain an adequate supply of space appropriate to the needs of incubator industries.	X		X	X		X	
Policy 7: Provide opportunities for minority-, women- and locally-owned small businesses.	X	X					
OBJECTIVE 20: AVOID OR MITIGATE HARDSHIPS IMPOSED BY DISPLACEMENT OF EXISTING BUSINESSES AS APPROPRIATE.	X	X	X				
Policy 1: Phase development to allow retention of existing businesses, consistent with other phasing principles.	X	X	X				
Policy 2: Provide appropriate assistance from the City for businesses facing displacement.	X	X					

Implementation Measures	Specific Plan	Development Agreement	CP Code	Zoning Map	Land Ex./ License	Tentative Maps	Subdivision Maps
Retail							
OBJECTIVE 21: CREATE VIABLE NEIGHBORHOOD COMMERCIAL DISTRICTS IN RESIDENTIAL AREAS.	X	X	X	X		X	
Policy 1: Provide multiple-use neighborhood commercial areas with small-scale neighborhood-serving retail and service activities convenient to residents during their regular activities.	X		X	X			
Policy 2: Encourage opportunities for neighborhood-based economic development.	X	X					
Policy 3: Develop neighborhood commercial areas which have a character similar to other San Francisco neighborhood shopping streets, which integrate physically and visually with the surrounding areas and which are pedestrian-oriented.	X		X	X		X	
Policy 4: Provide larger scale retail areas with opportunities for a supermarket and provision of discount goods and services for Mission Bay and surrounding neighborhoods.	X		X	X		X	
OBJECTIVE 22: CREATE A VARIETY OF RETAIL AND OTHER VISITOR-SERVING USES THAT BENEFIT BOTH RESIDENTS AND VISITORS.	X	X	X	X		X	X
Policy 1: Provide retail, hotel and cultural facilities for local and citywide use.	X	X	X	X		X	X
Maritime							
OBJECTIVE 23: ENHANCE SAN FRANCISCO'S MARITIME POTENTIAL.	X	X		X	X	X	
Policy 1: Use the existing Port jurisdiction east of Third Street to achieve land transfers compatible with the present Port and regional plans for Port expansion adjacent to its container terminals in the Pier 80-96 area.	X	X			X		
Policy 2: Avoid actions which may serve to displace desired existing maritime uses at Piers 48, 50 and 54.	X	X			X		
Policy 3: Develop an open space buffer for noise and visual buffering between maritime activity and abutting housing development to reduce land use conflicts.	X	X		X	X	X	
loyment Opportunities							
..JECTIVE 24: EXPAND EMPLOYMENT OPPORTUNITIES IN MISSION BAY FOR SAN FRANCISCO RESIDENTS.	X	X	X	X		X	
Policy 1: Promote efforts to attract, retain and expand employment improvement opportunities for unskilled and semi-skilled workers.	X	X					
Policy 2: Provide job training programs to impart skills relevant to Mission Bay.	X	X					
Policy 3: Provide opportunities for newly emerging economic activities.	X	X	X	X		X	
Policy 4: Promote the establishment of a cooperative affirmative action network for resident access to permanent and construction jobs in Mission Bay and include opportunities for minority, women and other local resident employment.	X	X					
COMMUNITY FACILITIES							
OBJECTIVE 25: ASSURE THAT ADEQUATE COMMUNITY SERVICES AND FACILITIES ARE PROVIDED FOR MISSION BAY RESIDENTS AND WORKING POPULATION.	X	X	X	X	X	X	X
Policy 1: Provide for general community services and recreation facilities, at a scale appropriate to serve Mission Bay.	X	X	X	X	X	X	X
Policy 2: Provide opportunities for neighborhood services that are linked to other neighborhood and citywide services.	X	X		X			
Policy 3: Provide for a cultural center that is multi-purpose in character, attractive in design, secure and comfortable, and inherently flexible in meeting the current and changing needs of the neighborhood served.	X	X	X	X	X	X	
Policy 4: Encourage the establishment of neighborhood services and administration which ensure responsiveness to changing neighborhood needs.	X	X			X		
Policy 5: Provide for community facilities and programs that are accessible for physically handicapped persons.	X	X	X	X			
Policy 6: Provide for such additional community services, including childcare, as are determined to be necessary and feasible.	X	X	X	X	X		
Policy 7: Provide the opportunity for health and educational institutions to locate in Mission Bay.	X	X	X	X	X	X	
Police and Fire Facilities							
CTIVE 26: PROVIDE WELL-LOCATED FIRE AND POLICE SUPPORT FACILITIES THAT ..IMIZE THE EFFECTIVENESS, USE AND ACCESSIBILITY OF FIREFIGHTING AND POLICE ERVICES.	X	X	X	X	X	X	X

Implementation Measures

	Specific Plan	Development Agreement	CP Code	Zoning Map	Land Ex./ License	Tentative Maps	Subdivision Maps
Policy 1: Locate and design facilities in a manner that encourages constructive police and neighborhood interaction.	X	X	X	X	X	X	
Utilities							
OBJECTIVE 27: ENCOURAGE EFFICIENT UTILIZATION OF EXISTING UTILITIES WHERE FEASIBLE.	X	X				X	X
Policy 1: Provide adequate utilities for each phase of development.	X	X				X	X
TRANSPORTATION							
Street System							
OBJECTIVE 28: ESTABLISH A STREET SYSTEM IN WHICH THE FUNCTION AND DESIGN OF EACH STREET IS CONSISTENT WITH THE CHARACTER AND USE OF ADJACENT LAND AND WITH THE GOAL OF PROVIDING EFFICIENT TRAFFIC FLOW.	X	X			X	X	
Policy 1: Integrate the Mission Bay street system with the surrounding fabric of City streets.	X	X			X	X	X
Policy 2: Design the Mission Bay street system to the minimum scale necessary to provide required movement and access functions.	X	X			X	X	
Policy 3: Establish an official truck route system along designated major and secondary thoroughfares to facilitate truck movements within and through Mission Bay.	X						
Policy 4: Continue to provide adequate truck and rail access to businesses and maritime facilities in San Francisco.	X	X			X		
Policy 5: Discourage non-local travel around residences, and non-recreational travel around parks and recreation areas in Mission Bay.	X					X	
Policy 6: Remove the I-280 stub end and coordinate freeway interchanges from I-280 to achieve a balanced distribution of vehicular traffic on the City street system both within and surrounding the Mission Bay plan area.	X	X					
OBJECTIVE 29: ESTABLISH SIGNIFICANT ENTRANCES TO MISSION BAY AND LINK IT WITH SURROUNDING DISTRICTS.	X	X			X	X	
Policy 1: Create a significant gateway to Mission Bay at Third and Fourth Streets near the China Basin Channel.	X						
Policy 2: Upgrade the quality and image of the major thoroughfares that link Mission Bay with downtown.	X	X			X		
Policy 3: Link the Embarcadero circulation system with Mission Bay.	X	X			X	X	
Policy 4: Provide visual and physical circulation links between Mission Bay and Showplace Square, and between Mission Bay and Potrero Hill.	X					X	
Mass Transit							
OBJECTIVE 30: EXPAND TRANSIT SERVICES TO, FROM, THROUGH AND WITHIN MISSION BAY.	X	X				X	X
Policy 1: Expand public transit routes to permit convenient connections to downtown and other San Francisco destinations.	X					X	
Policy 2: Provide right-of-way for the extension of regional transit service to downtown from peninsula transit corridors.	X	X				X	
Policy 3: Provide an extension of MUNI Metro into Mission Bay and the opportunity for future extensions to the south of Mission Bay.	X	X				X	X
Policy 4: Establish a separate right-of-way for the MUNI Metro light rail vehicles.	X	X				X	X
Policy 5: Create a transit center within Mission Bay for convenient local and regional transit system transfers.	X	X				X	
Bicycle Circulation							
OBJECTIVE 31: PROVIDE FOR THE SAFE AND CONVENIENT USE OF THE BICYCLE AS A MEANS OF TRANSPORTATION AND RECREATION.	X					X	X
Policy 1: Establish bicycle routes where appropriate within the Mission Bay area.	X					X	X
Policy 2: Provide secure and convenient parking facilities for bicycles at major commercial and residential developments, at transit terminals, and at major open space areas.	X						
Parking and Loading							
OBJECTIVE 32: PROVIDE ONLY THE AMOUNT OF PARKING AND LOADING NECESSARY TO SERVE MISSION BAY WITHOUT ADVERSELY AFFECTING LIVABILITY OR ENCOURAGING EXCESSIVE RELIANCE ON THE AUTOMOBILE.	X		X				

Implementation Measures

	Specific Plan	Development Agreement	CP Code	Zoning Map	Land Ex./ License	Tentative Maps	Subdivision Maps
Policy 1: Provide adequate off-street parking spaces for residential development.	X		X				
Policy 2: Do not provide long-term parking at Mission Bay for downtown commuters.	X		X				
Policy 3: Provide off-street loading and parking spaces for delivery and service vehicles.	X		X				
Policy 4: Encourage the multiple use of parking facilities to maximize their ability to serve daytime, evening and weekend populations.	X		X				
Pedestrian Circulation							
OBJECTIVE 33: PROVIDE FOR CONVENIENT, SAFE AND PLEASANT PEDESTRIAN CIRCULATION.	X		X	X	X	X	X
Policy 1: Give priority to pedestrian circulation in Mission Bay.	X					X	
Policy 2: Develop an extensive pedestrian network in Mission Bay which will permit future connection with pedestrian systems that may be developed in surrounding areas.	X					X	
Policy 3: Provide a pedestrian-oriented retail and community service street that connects with Mission Bay thoroughfares.	X		X	X	X	X	X
Policy 4: Provide sidewalks of sufficient width to facilitate pedestrian use.	X					X	X
Policy 5: Provide for pedestrian circulation and open space use in public rights-of-way not required for vehicular traffic.	X					X	
Policy 6: Provide handicapped access in pedestrian areas.	X					X	
Policy 7: Recognize the importance of the pedestrian environment in the street level design of buildings.	X		X				
Policy 8: Buffer pedestrians from heavy truck, transit and automobile traffic.	X						
Policy 9: Provide a variety of street amenities to ensure quality street level environments.	X		X			X	
cy 10: Expand and enhance pedestrian access to the edge of the Bay and to China Basin Channel.	X		X	X	X	X	
.icy 11: Develop mid-block lanes so that they can be used for outdoor recreation and as pedestrian amenities.	X		X			X	X
Policy 12: Create a network of pedestrian paths which connect important Mission Bay origins and destinations.	X					X	
Transportation Systems Management							
OBJECTIVE 34: MEET NEEDS OF MISSION BAY RESIDENTS, WORKING POPULATION AND VISITORS FOR SAFE, CONVENIENT AND INEXPENSIVE TRAVEL.	X	X				X	
Policy 1: Plan for transit as a primary mode of travel to, within and from Mission Bay.	X	X					
Policy 2: Seek to achieve the same modal split ratio that applies in the Downtown vicinity. Limit long-term parking for Mission Bay workers within Mission Bay.	X	X					
Policy 3: Develop a coordinated commute alternative program for Mission Bay employees.	X	X					
Policy 4: Coordinate Mission Bay regional and local transportation systems planning.	X	X					
Policy 5: Meet transportation needs of the physically disabled and elderly, consistent with citywide standards.	X	X				X	
ENVIRONMENTAL PROTECTION							
Conservation							
OBJECTIVE 35: ACHIEVE A BALANCE BETWEEN THE CONSERVATION, USE AND DEVELOPMENT OF MISSION BAY'S NATURAL RESOURCES.	X	X	X	X	X	X	X
Policy 1: Preserve and enhance the natural resources of the Mission Bay plan area and its environs.	X	X	X	X	X	X	X
Policy 2: Encourage the development of open space that reflects the natural and historic qualities of Mission Bay.	X						
Policy 3: Maintain and improve the existing wildlife environment in or near the Mission Bay plan area.	X						
OBJECTIVE 36: ASSURE THAT USE OF THE MISSION BAY LAND RESOURCES RESPECTS AND PRESERVES THE NATURAL VALUES OF THE LAND AND SERVES THE BEST INTERESTS OF THE CITY AND THE MISSION BAY COMMUNITY.	X	X		X	X		
Policy 1: Encourage broad and effective management of Mission Bay natural resources.	X						
sportation Noise							
OBJECTIVE 37: MINIMIZE TRANSPORTATION-RELATED NOISE.	X						
Policy 1: Encourage the use of electric trolley coaches for new transit within Mission Bay.	X						

Implementation Measures	Specific Plan	Development Agreement	CP Code	Zoning Map	Land Ex./ License	Tentative Maps	Subdivision Maps
Policy 2: Discourage greater traffic noise in noise-sensitive areas.	X						
OBJECTIVE 38: LOCATE LAND USES THAT ARE COMPATIBLE WITH TRANSPORTATION NOISE LEVELS.	X						
Policy 1: Discourage new uses where the noise level exceeds the noise compatibility guidelines for that use unless adequate noise insulation is feasible.	X						
OBJECTIVE 39: MINIMIZE THE IMPACT OF NOISE ON AFFECTED AREAS.	X			X			
Policy 1: Promote site planning, building orientation and design that will lessen or buffer noise intrusion.	X			X			
Policy 2: Promote the incorporation of noise insulation materials in new construction.	X						
Energy							
OBJECTIVE 40: PROMOTE ENERGY CONSERVATION IN MISSION BAY.	X	X					
Policy 1: Encourage non-energy intensive transportation modes, such as bicycling and walking.	X						
Policy 2: Explore the use of alternative energy sources and consider a district heating system.	X						
Policy 3: Provide recycling facilities.	X						
OBJECTIVE 41: ENCOURAGE DEVELOPMENT WHICH IS SENSITIVE TO THE NEEDS FOR SOLAR ACCESS, SHELTER FROM WINDS AND VENTILATION.	X		X			X	
Policy 1: Orient streets and residential buildings for maximum solar access to dwelling units where appropriate.	X		X			X	
Policy 2: Provide solar access for major indoor living spaces and exterior private spaces to the extent feasible.	X		X				
Policy 3: Provide through ventilation of dwelling units where possible.	X		X				
Policy 4: Create wind shielding for private open space where appropriate.	X		X			X	
Water Conservation							
OBJECTIVE 42: PROMOTE WATER CONSERVATION MEASURES BY MINIMIZING WATER USE FOR HOUSEHOLDS, IRRIGATION AND LANDSCAPING.	X					X	X
Policy 1: Use water systems and fixtures that provide maximum efficiency of water use.	X					X	X
Policy 2: Design landscapes that require lower quantities of water to remain healthy.	X						
Policy 3: Ensure through preventative maintenance that water systems and fixtures will function properly.	X						
COMMUNITY SAFETY							
Life Safety							
OBJECTIVE 43: CREATE DEVELOPMENT DESIGNED TO ENSURE SEISMIC SAFETY.	X	X				X	X
Policy 1: Require geologic or soil engineering site investigations and compensating structural design based on findings for all new structures in special geologic study areas.	X	X				X	X
Policy 2: Assure that critical community facilities, if located in special geologic study areas, have special engineering design to ameliorate identified risks and accommodate emergency assembly of nearby residents.	X					X	X
Policy 3: Ensure that land uses and structures are located to meet acceptable minimum levels of risk.	X	X				X	X
Policy 4: Provide for the adequate security of employees and property.	X					X	X
Hazardous Materials							
OBJECTIVE 44: ENSURE THAT ALL NEW MISSION BAY DEVELOPMENT MEETS STRICT ENVIRONMENTAL QUALITY STANDARDS.	X	X	X			X	X
Policy 1: Provide hazardous materials remediation prior to completion of construction and occupancy.	X	X				X	X
Policy 2: Ensure that any future use of hazardous materials does not create undesirable levels of future risk for employees and nearby populations.	X	X					
Emergency Operations							
OBJECTIVE 45: MINIMIZE HAZARDS TO LIFE SAFETY AND PROPERTY DAMAGE IN MISSION BAY.	X						
Policy 1: Provide for emergency services in Mission Bay.	X						
Policy 2: Provide comprehensive emergency response planning in coordination with the Mayor's Office of Emergency Services.	X						

F. Other Implementation Measures

The following programs and plans address implementation of several Plan objectives and policies which are incorporated in Chapter 3, as the parenthetical references indicate:

- Business Relocation (pps. 3-66)
- Transportation (pps. 3-113)
- Energy Plan (pps. 3-137)
- Water Conservation (pps. 3-138)
- Emergency Response (pps. 3-140)

Conservation

THE PROPOSED
TRANSPORTATION MANAGEMENT PROGRAM
FOR MISSION BAY

~~June 29, 1990~~

Objectives, Policies and Strategies

The broad objective of the transportation demand management program for Mission Bay will be to accommodate increased travel to, from and within Mission Bay without adverse impact on the transportation system. As Mission Bay develops and associated transportation infrastructure improvements are completed, commute travel modes should progress toward increasing use of public transit and ridesharing, such that by buildout commute patterns of Mission Bay employees are similar to those of employees throughout the greater downtown area.

In order to accomplish this objective, the following specific goals for the program are hereby adopted. These goals assume that the necessary transportation infrastructure, as called for in the Mission Bay Specific Plan and Development Agreement, is available.

a. Achieve an increasingly progressive modal shift by Mission Bay employees for commute travel, in favor of public transit as the highest priority and private ridesharing as the second priority, such that at buildout of Mission Bay at least 53% of employees commute by public transit, at least 15% by private rideshare arrangements (including club or subscription buses), with at least 1.2 average persons per private commute vehicle. These commute modal goals should reflect daily commute patterns for employees working in office and commercial/industrial land use categories.

   Goals for commute travel in the peak periods at buildout shall be 68% public transit, 18% private rideshare, and 1.4 average persons per private commute vehicle. Peak Period goals will apply to commute travel by employees working in office and commercial/industrial land use categories, and employees working in retail uses of at least 15,000 Gross Square Feet on Third Street.

b. Achieve an increasingly progressive temporal commute share, such that by buildout of Mission Bay at least 38 percent of employees arrive and depart their jobs outside the A.M. and P.M. peak periods (currently 7:00-9:00 A.M. and 4:00-6:00 P.M.). These temporal goals should reflect commute travel times for all Mission Bay employees along the King and Owens Street corridors working daytime schedules.

Specific targets for commute modal shares will be established for four year periods, in such a manner that reasonable and progressive modal shifts toward the goals for full buildout can be achieved.

Targets for each four year period will take into consideration factors including but not necessarily limited to existing and anticipated public transit accessibility, existing and anticipated employment population and mix, parking supply, and degree of achievement of previously established program targets.

The strategy to meet the overall goal is to develop and maintain a Transportation Demand Management Program for Mission Bay. The primary emphasis of the transportation demand management program shall be on reducing vehicular travel for commute purposes, particularly the use of single-occupant private vehicles for transportation both to and from Mission Bay.

The program will focus on marketing and incentives measures which encourage and facilitate the use of public transit by Mission Bay employees and business visitors whenever feasible, and encourage and facilitate the use of private ridesharing whenever public transit is not available or feasible. The types of measures to be employed in the program are based on the following primary objectives:

- Promote, encourage and facilitate increasingly progressive use of public transit as the highest priority and preferred mode of transportation.

- Promote, encourage and facilitate increasingly progressive participation in private ridesharing by individuals for whom public transit is not feasible, as a second priority mode of transportation.

- Promote, encourage and facilitate increasingly progressive use of other alternative modes of transportation such as bicycles and walking.

- Manage commercial parking demand and supply to provide sufficient amounts to first accommodate anticipated business visitor and rideshare commuter demand. Other commuter parking demand may be permitted, provided that goals for progressive modal shift from single occupant vehicles to public transit and ridesharing are not impeded.

- Promote, encourage and facilitate commute travel to and from Mission Bay outside of the A.M. and P.M. peak periods through flextime and staggered work hours programs.

- Such other measures as the City and Catellus Development may deem necessary and feasible.

Achieving the goal will require coordination among all interested parties in the planning and implementation of Mission Bay transportation services. In order to accomplish the goal, the City, Catellus Development,

Mission Bay developers, landowners, and employers must take an active and appropriate role in the development, implementation, oversight and evaluation of transportation demand management programs for Mission Bay as provided below.

Program Structure, Staging and Implementation

Responsibility for developing and implementing transportation demand management and brokerage programs will be shared among the several private sector groups in Mission Bay which have an interest in and would benefit from the program's activities. The City will participate in the development and monitoring of the program, but will have no responsibility to implement any programs or projects other than capital improvements to public rights of way and public transit facilities identified in the Mission Bay Development Agreement.

The Mission Bay Transportation Demand Management Program will be structured with two tiers, similar to programs for the Core Downtown.

1) Centralized Administration, Coordination and Assistance

Catellus Development will take a role of central coordination and administration for Mission Bay Transportation Demand Management programs, through working cooperatively with the City and developers of individual buildings.

A Memorandum of Agreement for Transportation Demand Management (M.O.A.) shall be negotiated and executed between Catellus Development and the Director of Planning, for four year periods of development. The M.O.A. for each four year period shall establish interim commute modal and temporal goals, established as targets for attainment by the completion of that period. These targets will be based on the ability of public transit capacity improvements reasonably anticipated to occur during that period to accommodate the expected employment growth during the four years, and should show clear progress toward meeting the buildout goal.

The M.O.A. for each four year period will also specify the elements and terms of transportation measures to be implemented during the course of that period. These measures will include programs and activities to be executed by Catellus Development, developers and others as appropriate within the Mission Bay area, and will be an outgrowth of the principles established in this document, the Mission Bay Specific Plan and its EIR analysis, and where not in conflict with other aspects of the Development Agreement, then current guidelines for implementation of City Planning Code Section 163. Such measures and levels of effort shall be applicable only to buildings approved for construction during the four year term of the applicable MOA.

Each Memorandum of Agreement may also include negotiation of measures, beyond those identified in this document as the base level of effort, which Catellus Development and the City may deem necessary

based on the attainment of established targets and the available transportation systems, and taking into account San Francisco principles and practices for similarly-zoned districts and then current "state of the art" principles and practices.

Catellus Development will include in commercial property transactions (including sale) along King and Owens Streets, and in commercial property transactions for retail space of at least 15,000 Gross Square Feet on Third Street, the requirement that the successor in interest or tenant participate in the Transportation Demand Management Programs developed and implemented for Mission Bay, as provided for and limited by this document, and that each building along King and Owens Streets develop and implement a Transportation Demand Management Program specific to that building pursuant to the applicable MOA.

Catellus Development will establish and maintain a central transportation "Network" or similar organization by and for individual building programs, providing implementation guidance and assistance.

2) Building Specific Program Activities

Developers, owners or managers of all office and/or commercial/light industrial buildings, as defined herein, will be required to develop and implement a Transportation Demand Management Program for their buildings. Individual building programs will be developed and implemented according to the activities and minimum performance criteria established in the Memorandum of Agreement for the four year period in which the building is approved, as executed between Catellus Development and the City.

Developers, owners, or managers of affected buildings along King and Owens Streets shall include in all lease agreements, the requirement that tenants and occupants within the building participate in the program of activities developed for that building. Model lease language is provided in Appendix C.

Developers, owners or managers for all retail uses of at least 15,000 Gross Square Feet shall also participate in a Transportation Demand Management Program.

Appendix B outlines the set of measures and activities to be implemented as part of the Transportation Demand Management Program for Mission Bay, for both Catellus Development and individual building owners, which are considered the base level of effort: "Individual Building Owners" applies to commercial office and commercial/light industrial buildings, as defined in this document, along King and Owens Streets.

All measures and associated specific tasks and activities listed in Appendix B as the responsibility of individual building owners are those otherwise required for downtown buildings, and follow the same performance criteria as downtown programs with the exception of ratios for minimum allocations of short term and rideshare parking in individual buildings.

Transportation Demand Management Programs for retail uses of at least 15,000 Gross Square Feet may include some or all of the specific measures listed in Appendix B as the responsibility of individual building owners, as may be specified in the applicable MOA.

APPENDIX A

Glossary of Terms

This proposal uses a number of terms which are defined below.

1. Building — Any building or group of buildings including at least 50,000 Gross Square Feet of office and/or commercial/light industrial uses, which meets any one of the following conditions: (a) under single ownership; (b) governed by a common set of covenants, conditions and restrictions; or (c) covered by a single tentative or final subdivision map.

2. Carpool: A formal and regular arrangement of employees to commute together in a private auto, with at least 3 occupants.

3. Commute: A journey-to-work or work-to-home trip, inclusive of linked trips, as used for EIR analysis.

4. Employee: Any person hired by any employer whose base of operation or predominant location of employment is within Mission Bay.

5. Employer: Any private or public employer who has a permanent place of business within Mission Bay. For the purposes of this Agreement, the total number of employees on the largest shift shall determine the size of the employer.

6. Peak Hour: The one-hour periods during the morning and evening Peak Periods, in which travel on the transportation system reaches maximum levels (currently 8:00 to 9:00 A.M., and 4:30 to 5:30 P.M., for the setting conditions in the Mission Bay EIR).

7. Peak Period: The periods during the morning and evening, in which aggregate travel demand approaches, reaches, or exceeds available capacity of the transportation system (currently 7:00 to 9:00 A.M., and 4:00 to 6:00 P.M., for the setting conditions in the Mission Bay EIR).

8. Public Transit: All bus and rail transit operators funded at least in part by public funds.

9. Ridesharing: Any private transportation mode which involves more than one occupant in each vehicle, including 2-occupant vehicles, carpools, vanpools, subscription and club buses.

10. Single-Occupant Vehicle: Any motor vehicle occupied by 1 person, excluding motorcycles, mopeds and other two-wheeled vehicles.

11. Transportation Demand Management Program: 1 combination of actions which are designed and intended to

reduce the vehicle trip generation rate of a specific use or uses of land and buildings thereon.

12. Transportation System:
The entire network of local and arterial streets, regional highways, freeways and bridges, and both local and regional public transit properties, which provide access to and from the San Francisco downtown and vicinity and to Mission Bay.

13. Vanpool: A formal and regular arrangement of no less than 7 and no more than 15 employees to commute together in a single private vehicle.

APPENDIX B

MISSION BAY TRANSPORTATION DEMAND MANAGEMENT PROGRAM MEASURES AND ACTIVITIES
BASE LEVEL OF EFFORT

PROGRAM CATEGORY	RESPONSIBILITY FOR IMPLEMENTATION	
	Catellus Development Corporation ~~Santa Fe Pacific Realty Corporation~~	Individual Building Owners
1. Program Management and Implementation	Execute a Memorandum of Agreement for Transportation Management with the Director of Planning prior to commencing with Mission Bay development and for each subsequent and consecutive four year period, to establish modal share and temporal targets to be attained within the four year period in which the Agreement is effective, and to specify the transportation mitigation measures, including infrastructure improvements to be constructed by the public sector, expected to be implemented during that four year period. Designate and maintain a Mission Bay Transportation Management Coordinator, to: • Review and evaluate individual employer and complex Transportation Demand Management Programs, for adequacy of program implementation and progress toward attainment of goals;	Include in all office and commercial/ light industrial lease agreements for buildings along King and Owens Streets the stipulation that occupants of the building participate in the Transportation Management Program developed for the building, including any activities which may be required by the Transportation Demand Management Programs established by Santa Fe Pacific Realty for Mission Bay. Prior to application of any occupancy or fire permit, execute a Memorandum of Agreement for Transportation Management with the Director of Planning for the subject building which comports with the applicable MOA. Designate and maintain a Transportation Management Coordinator for each building, to: • Oversee, manage and coordinate implementation of commute assistance and marketing activities for the building;

APPENDIX B

MISSION BAY TRANSPORTATION DEMAND MANAGEMENT PROGRAM MEASURES AND ACTIVITIES
BASE LEVEL OF EFFORT

PROGRAM CATEGORY	RESPONSIBILITY FOR IMPLEMENTATION	
	~~Santa Fe Pacific Realty~~ Catellus Development Corporation	Individual Building Owners
1. Program Management and Implementation (Cont'd)	• Prepare and submit to the City periodic status reports and evaluation reports, at intervals of no more than two years beginning from time of initial report; • Organize and maintain a transportation "Network" or similar centralized coordinating organization for Mission Bay, consisting of the Mission Bay Transportation Management Coordinator and Coordinators for individual buildings.	• Prepare and submit to the Mission Bay Transportation Management Coordinator and the City annual status reports periodic survey summary reports; and • Participate in a transportation "Network" or other similar centralized coordinating organization for Mission Bay.
2. Data Base Development and Implementation	Conduct areawide transportation surveys of employers and employees approximately every four years (in conjunction with monitoring processes and areawide surveys for the Downtown and Vicinity)	Conduct biennial transportation surveys of tenants and employees. A survey specific to the building, to develop marketing strategy for the building program, shall be conducted at four year intervals, alternating with areawide surveys in which the building owner shall participate, also at four year intervals. Thus every two years, there will be either an areawide survey or a building specific survey. The building owner may participate in areawide surveys

APPENDI

MISSION BAY TRANSPORTATION DEMAND MANAGEMENT PROGRAM MEASURES AND ACTIVITIES
BASE LEVEL OF EFFORT

PROGRAM CATEGORY	RESPONSIBILITY FOR IMPLEMENTATION	
	~~Santa Fe Pacific Realty~~ Catellus Development Corporation	Individual Building Owners
2. Data Base Development and Implementation (cont'd)		through contribution of a dollar amount proportional to the ratio of Project employees to the total number of employees in the buildings contributing to the area surveys, based upon a contract amount for each areawide survey.
3. Overall Program Marketing	Sponsor and conduct an annual "Transportation Fair" or other multi-model and multi-disciplinary event focusing on commute alternatives and flextime, including presentations and displays by RIDES and all public transit operators serving the greater downtown area; Publication and distribution to building Coordinators of a listing of transportation system changes affecting accessibility to and mobility within the Mission Bay and greater downtown areas; Develop, for distribution to individual building coordinators, various marketing materials as may be required for individual buildings which are generic to conditions throughout Mission Bay.	Participate in an annual Transportation Fair. Include information on the benefits and services of the building program in leasing brochures or "Move-in Packets". Provide employee commute alternatives information packets to tenants at time of move in. Semiannual publication and distribution of generalized commute promotional and informational materials. Develop and implement a building specific commute alternatives incentives program, including financial incentives measures to increase use of public transit and/or carpools and vanpools, to the extent recommended in implementation guidelines for City Planning Code Section 163 and agreed to in the applicable MOA.

APPENDIX B

MISSION BAY TRANSPORTATION DEMAND MANAGEMENT PROGRAM MEASURES AND ACTIVITIES
BASE LEVEL OF EFFORT

PROGRAM CATEGORY	RESPONSIBILITY FOR IMPLEMENTATION	
	~~Santa Fe Pacific Realty~~ Catellus Development Corporation	Individual Building Owners
4. Public Transit Promotional and Convenience Services.		On site sale of transit tickets and passes. On site distribution of route and schedule information for public transit operators, in conjunction with pass sales. Quarterly posting, in a prominent central location within each building, of a flyer describing when and where public transit tickets, passes and route/schedule information are available. Annual central lobby posterboard displays of services by all public transit operators serving the greater downtown and Mission Bay project area. Annual flyer to tenants, encouraging use of Muni tokens and BART passes for employee business use. Per applicable guidelines for CPC §163 if transit modal share targets are not met, conduct transit "target" promotions, separate from the "Transportation Fair," aimed at increasing public transit patronage by clusters of building employees concentrated in small geographic residence locations for whom public transit is a reasonable commute mode.

APPENDIX B

MISSION BAY TRANSPORTATION DEMAND MANAGEMENT PROGRAM MEASURES AND ACTIVITIES
BASE LEVEL OF EFFORT

PROGRAM CATEGORY	RESPONSIBILITY FOR IMPLEMENTATION	
	~~Santa Fe Pacific Realty~~ Catellus Development Corporation	Individual Building Owners
5. Ridesharing Promotional and Implementation Services		Semiannual distribution of promotional brochures on ridesharing in general, including information on the availability of on-site and off-site preferential rideshare vehicle parking, and a RIDES matchlist application. Per applicable guidelines for CPC §163, conduct at least one special ridesharing "target" promotion, separate from "Transportation Fair," aimed at increasing rideshare participation and vehicle occupancy by clusters of building employees concentrated in small geographic residence locations where public transit is not a viable option. A second annual target promotion may be required, as per CPC applicable §163 guidelines. Provide and assign preferential rideshare parking spaces on-site, through quarterly issue of rideshare parking "permits" according to applicable guidelines for CPC §163. Establish, maintain and monitor, on a quarterly basis, a listing of registered rideshare participants using on-site preferential spaces. and rideshare

APPENDIX B

MISSION BAY TRANSPORTATION DEMAND MANAGEMENT PROGRAM MEASURES AND ACTIVITIES
BASE LEVEL OF EFFORT

PROGRAM CATEGORY	RESPONSIBILITY FOR IMPLEMENTATION	
	~~Santa Fe Pacific Realty~~ Catellus Development Corporation	Individual Building Owners
6. Flextime Promotional and Implementation Activities		Annually distribute a flyer to all building employers, offering information and assistance in implementing flextime and/or staggered work hours (multi-tenant buildings only). Arrange, in cooperation with flextime programming specialists, an annual flextime orientation presentation for employers newly occupying space in the building, and representatives of existing building employers who have responded that they would like information or assistance regarding flextime (multi-tenant buildings only). Upon request from a tenant, and in cooperation with flextime programing specialists, provide direct implementation assistance to develop and implement a flextime program (multi-tenant buildings only).

APPENDIX B

MISSION BAY TRANSPORTATION DEMAND MANAGEMENT PROGRAM MEASURES AND ACTIVITIES
BASE LEVEL OF EFFORT

PROGRAM CATEGORY	RESPONSIBILITY FOR IMPLEMENTATION	
	~~Santa Fe Pacific Realty~~ Catellus Development Corporation	Individual Building Owners
7. Parking Management	The aim of parking management will be to design, provide and operate parking areas to assure an adequate number of preferential spaces for carpools and vanpools, as well as to limit parking for single occupant vehicle commuters according to goals established in each applicable Memorandum of Agreement and in relation to public transit availability. The basic requirements for accessory commercial off street parking in Mission Bay shall be as set forth in Article 9 of the City Planning Code. Until public transit infrastructure is developed and in service to the Mission Bay project area, additional parking may be permitted through temporary development of vacant lands as surface parking lots. Each applicable M.O.A. will specify a maximum amount of off-street commercial parking to be provided for Mission Bay during the four year term	Accessory parking for commercial office and commercial light/industrial uses will be approved with specific minimum allocations to different types of users, as follows. First priority shall be given to short term parking needs, and second priority to legitimate registered carpools and vanpools. The ratio used to calculate minimum allocations to short term parking shall initally be 1 space for every 5,000 GSF of office and/or commercial light/industrial uses plus 1 space for every 500 GSF of accessory retail uses, subject to change based upon evidence of actual demand gathered from surveys in Mission Bay. Reduction of the short-term parking requirement for accessory retail uses may be permitted if it can be demonstrated that the otherwise applicable requirement exceeds the short-term parking demand generated by the retail uses. The ratio used to calculate minimum allocations to rideshare parking shall be 1 space for every 5,000 GSF of office and/or commercial/light industrial uses. Any accessory parking provided on-site shall

APPENDIX B

MISSION BAY TRANSPORTATION DEMAND MANAGEMENT PROGRAM MEASURES AND ACTIVITIES
BASE LEVEL OF EFFORT

PROGRAM CATEGORY	RESPONSIBILITY FOR IMPLEMENTATION	
	~~Santa Fe Pacific Realty~~ Catellus Development Corporation	Individual Building Owners
7. Parking Management (cont'd)	of the M.O.A., including parking accessory to buildings and temporary use of vacant land as parking.	include the proportionate amounts of short-term parking for office, commercial/light industrial and retail uses; and rideshare parking for office and commercial/light industrial uses. The remaining parking may be allocated at the discretion of the building owners or managers, to the extent that: 1) weekday parking leases for other than registered carpools and vanpools are limited exclusively to building occupants; 2) parking leases shall be issued first to those who require the use of an automobile in the course of their daily job duties; and 3) any of the remaining parking which is offered to nonoccupants of the building is subject to all restrictions applicable to the mandatory short term allocation.

APPENDIX B

MISSION BAY TRANSPORTATION DEMAND MANAGEMENT PROGRAM MEASURES AND ACTIVITIES
BASE LEVEL OF EFFORT

PROGRAM CATEGORY	RESPONSIBILITY FOR IMPLEMENTATION	
	~~Santa Fe Pacific Realty~~ Catellus Development Corporation	Individual Building Owners
		Implement and maintain a weekday parking rate structure in conformance with the applicable MOA provisions regarding Section 155(g) of the City Planning Code for all parking available to the general public, and assessed exclusively and in increments of one hour or less daily maximum charges. Leasing, prepaid "coupons" or any other encumbrance of parking spaces allocated or provided for weekday short term use shall be prohibited. Month-to-month lease of spaces allocated for preferential rideshare parking to commuters not participating in a carpool or vanpool may be permitted, subject to limitations stated in the January, 1988 "Developer's Manual."

APPENDIX C

Model Tenant Lease Language for
Participation in Building
Transportation Management Program

The Project Sponsor shall include in all leases for office space a provision requiring tenant employers to cooperate in, and assist in carrying out Lessor's Transportation Management Program implemented pursuant to the Mission Bay Plan and Development Agreement and City Planning Code Section 980, and to designate a responsible employee to carry out this obligation. The lease provision shall read substantially as follows:

> Pursuant to City Planning Code Section 980 and agreements specific to the Mission Bay Plan and Development Agreement, the Lessor has entered into an agreement with the Department of City Planning to provide and implement a Transportation Demand Management Program for building Lessees and to participate in a program designed to coordinate commute alternatives marketing and brokerage for Mission Bay employees. During the term of the tenancy, Lessor agrees to provide transportation brokerage and commute assistance services to the Lessee to assist the Lessee in meeting the transportation needs of its employees as provided in Lessor's agreement with the Department of City Planning. Lessee agrees to cooperate with and assist the Lessor's Transportation Management Coordinator, through designation of a responsible employee to distribute to Lessee's employees written materials promoting and encouraging the use of public transit and/or ridesharing, and to distribute and return to the Coordinator transportation survey questionnaire forms. Lessor may negotiate with Lessee for Lessee's participation in other activities required of Lessor as incentives for increasing use of public transit and/or ridesharing by employees in the building.

The Project Sponsor may use other language, subject to the approval of the Zoning Administrator, consistent with its standard lease contracts, provided it is no less inclusive or restrictive than the foregoing language.

DJF:160

ENERGY PLAN FOR MISSION BAY

SUMMARY

The City's goals for energy efficiency are expressed in the Comprehensive Plan as (1) to increase the efficiency with which energy is used locally; (2) to diversify the present balance of resource supplies to meet local energy needs; (3) to foster the economic development of energy management services and renewable energy systems; and (4) to encourage the active participation of members of the community in carrying out this program. In particular, the City's concern is to decrease the drain of capital from the local economy in the form of energy purchases from outside the city, and to significantly reduce personal and business energy costs. In addition, the Energy Plan for Mission Bay seeks to contribute to the long term affordability of both housing and business uses at Mission Bay, and to contribute to the attractiveness of the community as a place for living and working.

Energy is a very important issue for the Mission Bay development because of the size of the project, the corresponding scale of energy expenditure by its residents, and the prospect for shorter energy supplies and much higher energy costs during the project life. The annual cost for energy at Mission Bay will be at least $13 million per year at 1987 prices. Since the United States has become dependent on overseas suppliers through becoming a net importer of energy, we can expect both energy cost increases and interruptible supplies during the life of the project.

The Energy Plan for Mission Bay will help mitigate the effects of these variations in energy cost and supply, and will establish Mission Bay as a cost effective and energy efficient, as well as attractive, place to live and do business.

The Energy Plan consists of energy conservation design measures appropriate to the Mission Bay project that will mitigate the effects of rising energy costs and uncertain supplies. The plan focuses on the potential for reducing energy consumption in buildings. Outside of transportation uses, energy use at Mission Bay will be dominated by heating, cooling, lighting, and providing other needed services within buildings. The design measures included in the plan ensure those services are provided efficiently. Also included in the plan are measures to reduce solid waste disposal. In conserving these resources, energy is also conserved.

The energy design measures in the Energy Plan are organized into three categories:

1) Requirements for building design.

2) Required feasibility analyses to identify site specific cost effective opportunities for energy conserving design options.

3) Guidance provided for low cost/no cost measures and for measures that prepare for future advances in technology.

The project sponsor, Catellus Development Corporation, is responsible for making available this "Energy Plan for Mission Bay", the materials as called for in this plan, and supplementary materials offering further guidance.

The measures in the plan will contribute to an energy efficient, attractive and affordable community at Mission Bay.

MEASURE CHECKLIST FOR BUILDING TYPES MATRIX

Energy Conservation Measure	Residential			Nonresidential				
	Town Houses	Walk-Ups	Mid-Rises	Office	Comm./Lt. Ind.	Retail	Community	Hotel
Requirements for Building Design								
1) Efficient Equipment and Appliances	X	X	X	X	X	X	X	X
2) Reduced Lighting Power				X	X	X	X	X
3) Natural Cooling	X	X	X	X	X	X	X	X
4) Building System Operation and Maintainance Plan				X	X	X	X	X
5) Energy Management and Control Systems				X	X	O	O	X
6) Individual Metering	O	X	X	X	X			
7) District Heating and Cooling System	O	O	O	O	O	O	O	O
Required Feasibility Analyses								
8) Feasiblility analyses to include:								
a. Thermal storage				O	O	O	O	X
b. Daylighting				X	X	O	O	X
c. Cogeneration			O	O	O		O	X
Guidance Provided								
9) Outdoor Lighting	X	X	X	X	X	X	X	X
10) Recycling	X	X	X	X	X	X	X	X
11) Passive Solar Space Heating	O	O	O					
12) Load Management				X	X	O	X	X
13) Landscaping and Building Orientation for Wind	X	X	X	O	O	O	O	O
14) Optimized Glazing Orientations				X	X	O	X	X
15) Photovoltaics	X	X	X	X	X		X	X
16) Solar Domestic Hot Water Systems	X	X	X					

X = measure applies to all buildings in building type
O = measure may apply to some buildings in building type

1) EFFICIENT EQUIPMENT AND APPLIANCES

A. Residential Buildings

1. Restrict the use of electric resistance space heating and water heating equipment in all residential buildings to the following:

   a) cases where it is used as a backup to a heat pump.

   b) minor and incidental areas requiring heat in isolated locations which are impractical to serve with a gas fired system.

2. Use efficient fluorescent lighting or other lighting of equivalent efficiencies in interior common space of all residential buildings.

3. Only install refrigerators/freezers that have efficiencies of 12% over the prevailing standards (e.g. State of California requirement) so long as they are available for purchase.

2) REDUCED LIGHTING POWER - Nonresidential

1. Install occupancy sensors in all appropriate locations in all nonresidential buildings. (Examples include meeting rooms, storage rooms, utility rooms and equipment rooms).

2. For each building choose one of the following lighting power reduction strategies to achieve 15% lighting power reduction over State of California Title 24 requirements provided this does not compromise I.E.S. illuminance standards.

   a) Task/ambient lighting design for work spaces. This refers to lighting design which targets lighting to task work areas. It is often unnecessary, or even undesirable, to illuminate an entire building to the same level. Task/ambient lighting design targets higher levels of light to the work surface and lower levels of light, (ambient lighting) in the surrounding areas. Task lighting has the potential to out-perform uniform lighting design by providing equal or superior illumination for tasks at substantially reduced overall operating costs.

b) Electronic or current limiting ballasts.

c) Any lighting technology which achieves 15% reduction in lighting power over State of California Title 24 standards.

3) **NATURAL COOLING**

A. Residential Buildings

1. Design for nonmechanical ventilation for all common areas in residential buildings, except where prohibited by code or where security considerations or other serious design considerations make it impossible. Where mechanical ventilation is provided to internal common areas, it must be equipped with time switch or occupancy sensor or similar device to switch off ventilation when not required.

2. Encourage building orientation such that the long axis of the building is pointing west or northwest in order to facilitate natural ventilation.

B. Nonresidential Buildings

1. Install 100% air economizers in all nonresidential building HVAC systems, except where special air quality conditions are required.

2. Encourage the design and installation of central HVAC systems over floor by floor HVAC systems or small packaged air conditioning units.

4) **BUILDING SYSTEM OPERATION AND MAINTENANCE PLAN**

Include a Building Operation and Maintenance Plan as part of all prime contracts for building mechanical and electrical design for all nonresidential buildings. An outline of all the necessary components is as follows:

1. An information manual for the original building owner and/or manager to include:

- o Information on all building energy using systems.
- o Information on routine maintenance required.

- o Information, suggestions and guidance to assist the building owner/manager in establishing effective, appropriate energy management policy specific for that particular building.
  (An example would be identifying equipment which will effect peak electrical demands so that alternative scheduling of such equipment during off peak hours can be considered)
- o Information to assist the building owner/manager in energy use and cost monitoring and recording.

2. An information manual for the original building occupants to include information on efficient use of occupant controlled equipment.

3. An operation/information manual for the building operator to include:

   - o Information on all building energy using systems
   - o Information on required routine maintenance
   - o Information on energy monitoring and recording

4. Conduct a building inspection of all energy using systems six months after the building has been in use to insure that all systems are operating correctly and as designed.

This Building System Operation and Maintenance Plan will be made available to building architects, design engineers, contractors and developers involved in the design and construction of nonresidential buildings at Mission Bay. The qualifications of those conducting the building inspection will be jointly determined by Catellus Development Corporation and the San Francisco Public Utilities Commission Bureau of Energy Conservation.

5) ENERGY MANAGEMENT AND CONTROL SYSTEMS

Incorporate an Energy Management and Control System (EMCS) in all nonresidential buildings with more than 100,000 square feet of floor area to include but not be limited to the following control strategies where appropriate:

Optimum Start/Stop. A program to start building HVAC equipment to optimize energy conservation without compromising comfort, based on outside air temperature, inside temperature, the occupied setpoint, and previous building performance. Early HVAC shut-down is similarly accomplished.

Time Schedule. Scheduled on-off control of major building heating and cooling equipment to eliminate unnecessary use of HVAC systems during unoccupied hours.

Supply Air Temperature Reset . In VAV fan systems, reset temperature is based on the zone cooling load.

Demand Limiting. Scheduling the use of electrical equipment to get the work done at the lowest possible electric load at one time, consistent with maintaining appropriate building functions. This strategy is especially useful in reducing demand changes when the building has sharp electrical peaks.

Lighting Controls. Essentially programmable timers, lighting controls switch lights on and off according to a predetermined schedule, as appropriate for building functions. Lighting controls can also reduce, or schedule, lighting for maintenance purposes. Manual overrides should, however, be incorporated.

Duty Cycling. The on/off cycling of equipment that generally has been oversized for its task or where multiple unit operation exists including multiple elevators, chillers etc., to avoid unnecessary use of equipment.

Boiler/Chiller Optimization. Boiler and chiller reset and efficiency improvements can many times be handled more effectively by the buildings energy management and control system.

Economizer Control. Automated control of the outside air economizer can be most effectively accomplished with an energy management and control system.

6) INDIVIDUAL METERING

A. Residential Buildings

1. Provide for individual metering of electricity for all residential units in multi-family buildings.

2. Provide for individual metering of natural gas for all residential units where both individual gas-fired space heating and natural gas-fired water heating are present.

B. Nonresidential Buildings

Provide space for at least one meter per floor in all tenant office and commercial/light industrial buildings.

7) DISTRICT HEATING AND COOLING

Provide non-financial support to all joint City/PG&E studies as long as the studies indicate DHC system costs will not exceed those of a conventional system.

8) REQUIRED FEASIBILITY ANALYSES

Conduct one site-specific study every five years during construction of the project on the feasibility of alternative sources of heating, cooling, and electricity, as well as and of daylighting. This shall include but not be limited to:

a) thermal storage strategies for off peak cooling, (not appropriate if a district cooling system is providing building air conditioning).

b) feasibility analysis of daylighting to determine potential savings from utilizing daylighting design.

c) feasibility analyses of cogeneration in facilities with a projected annual thermal load of more than 4000 mmbtu and a centralized water heating system, provided that the building is not served by a district heating and cooling system for its heating and air conditioning requirements.

The results of these studies will be made available to all architects, building design engineers, contractors and developers involved in the design and construction of nonresidential buildings at Mission Bay. Scope of the studies will be determined between Catellus Development Corporation, the City of San Francisco PUC Bureau of Energy Conservation and Pacific Gas and Electric Company.

9) OUTDOOR LIGHTING

The following guidance is offered to assure energy efficient outdoor lighting, and is to be made available to all architects, building design engineers, contractors, and developers involved in the design and construction of buildings at Mission Bay:

Use only high pressure sodium, metal halide (when color rendition is a concern), or other lighting of equivalent efficiencies for all outdoor lighting which is installed on or as part of a building or its parking area.

10) RECYCLING

A. Community Facilities and Services

The following is guidance for Catellus Development Corporation to consider providing for the Mission Bay Community in order to assure that Mission Bay residents and businesses be provided with the same recycling services and convenience found in other parts of the City:

1. A Recycling Collection Facility of Appropriate Size. The site could be about 5000 square feet, and be located to minimize negative impacts (such as noise) to residential neighborhoods. Containers should be properly constructed to prevent litter and whenever possible, should be attractive and blend in with surroundings. Materials collected must include glass, aluminum, plastic, non-aluminum metal, newspapers and cardboard.

2. A Residential Recycling Program. The program should comply to the city's residential recycling program which is currently under development. The program should include a combination of curbside or household pickups, drop-off centers and buy back centers.

B. Residential Buildings

The following guidance is offered to assure adequate space for recyclables in residential buildings, and is to be made available to all architects, building design engineers, contractors, and developers involved in the design and construction of residential buildings at Mission Bay:

1. Space where recyclable materials could be stored should be provided in or outside the building whenever space is being provided for trash. The intent is to provide the same convenience for storage, disposal or pick up of recyclables as will be designed for trash. For example, kitchen designs for accommodating trash should also accommodate recyclables, and where chutes are provided on each floor of a building for residents to dispose of trash, then separate chutes should be provided for recyclables.

C. Nonresidential Buildings

The following guidance is offered to assure adequate space for recyclables in all nonresidential buildings,and is to be made available to architects, building design engineers, contractors, and developers involved in the design and construction of all nonresidential buildings at Mission Bay:

1. Space should be provided which is accessible to the loading dock of each building for storage of recyclable materials. The space should be of adequate size for those materials and be readily accessible from the loading dock..

2. A sprinkler system should be installed in any room or space provided for storage of paper or cardboards.

11) PASSIVE SOLAR SPACE HEATING

The following guidance is offered to utilize the solar potential at Mission Bay for passive solar space heating of residential units, and is to be made available to all architects, building design engineers, contractors and developers involved in the design and construction of all residential buildings at Mission Building:

- Single aspect units with a South, Southwest, or Southeast exposure should be designed for maximum passive solar heating. (With the exception of those units with poor solar access).

- Single aspect units with a North, Northwest or Northeast exposure should use double insulated glass for all exterior envelope glazing area. (This will compensate for lack of solar heat gain which contributes to winter heating).

- Through units with a southern exposure facing toward the street should locate the main living area on the south side of the building and be designed for maximum passive solar benefit. (With the exception of those units with poor solar access).

- Building orientation and form should be encouraged to maximize the Southeast and Northwest facades on the South of Market street grid, and the North and South facades on the Mission street grid. (This not only maximizes the number of units with favorable orientations for passive solar design, it also maximizes units with North views).

- "Through" units should be encouraged over single aspect units to improve natural ventilation.

- The City of San Francisco Public Utilities Commission Bureau of Energy Conservation can provide developers, architects, design engineers and contractors involved in the design and construction of residential buildings at Mission Bay with guidance on optimum glazing design for dual aspect units.

12) LOAD MANAGEMENT

The following guidance is offered on load management, and is to be made available to all building architects, design engineers, contractors and developers involved in the design and construction of all nonresidential buildings at Mission Bay:

1. Electrical wiring design should allow for load shedding of multiple unit operations, such as multiple elevators, chillers etc.

2. Owners of buildings should consider group plans for load curtailment, as offered by PG&E, for reduced electric rates.

13) LANDSCAPING AND BUILDING ORIENTATION FOR WIND

The following guidance is offered on landscaping and building orientation to help mitigate wind effects on buildings and open space, and is to be made available to all building architects, contractors and developers involved in the design and construction of all buildings at Mission Bay.

Because of the variability of winter wind direction, there is no clear option for mitigating wind effects on buildings and open spaces during the coolest months of the year. However, buildings and open spaces can be made more comfortable during the spring, summer and fall (spring and fall are still portions of the heating season) by:

1. Building orientation. Residential buildings should be oriented with the long axis in an East-West direction on the Mission street grid and in a Northwest-Southeast direction on the South of Market grid. These orientations direct the small side of the buildings into the prevailing breezes, and in addition, allow for reasonable solar access and through ventilation of double loaded corridors.

2. Landscaping. Trees and other large plantings could be placed on the west and northwest sides of buildings and open spaces which are not sheltered by buildings on those sides. This will help to reduce windspeeds at lower building levels and across open spaces while maintaining sunlight availability from the south.

14) OPTIMIZED GLAZING ORIENTATIONS

The City of San Francisco PUC Bureau of Energy Conservation can provide developers, architects, design engineers and contractors involved in the design and construction of nonresidential buildings at Mission Bay with guidance for optimized glazing design in nonresidential buildings. Optimized glazing refers to using advantageous combinations of various glazing characteristics which will lower the energy consumption in a building.

15) PHOTOVOLTAICS

The following guidance is offered to better accommodate future use of photovoltaics at Mission Bay, and is to be made available to architects, design engineers, contractors and developers involved in the design and construction of residential buildings at Mission Bay:

1. Solar access to building rooftops. Building heights at Mission Bay should permit rooftop solar access to buildings between 9am and 3 pm throughout the year.

2. Roof orientations. Roofs of both residential and nonresidential buildings should as often as feasible be either flat or on south-facing slopes. This will allow for maximum sunlight availability to any roof solar collector array.

16) SOLAR DOMESTIC HOT WATER SYSTEMS

The following guidance is offered to facilitate the future addition of solar systems, and is to be made available to architects, building design engineers, contractors and developers involved in the design and construction of residential buildings at Mission Bay:

1. Solar access to rooftops. Building heights should permit rooftop solar access to most buildings between 9am and 3pm throughout the year.

2. Roof construction. Roofs should be either flat or south facing, and be of sufficient strength to support the collectors.

3. Plumbing. Developers could incorporate the plumbing necessary for a future solar system. This includes extra lengths of pipe at the central hot water system and piping to the roof for the future collector hook-up.

TO BE IMPLEMENTED

RECOMMENDED WATER CONSERVATION MEASURES TO THE EXTENT FEASIBLE - ~~6-1-86~~

(delete underlined)

Inside Water Use

1. Water using fixtures must be in compliance with local and State codes.

2. Each building will be individually metered. As much as practical, each business and living unit should be metered.

3. All cooling and process water shall be recycled to the extent practical.

4. Clothes washers and dishwashers should be low water use/energy efficient models.

Outside Water Use

1. Irrigation systems will be separately metered with limited areas served by each system.

2. The irrigation system should include a watering schedule, with specific amendments for seasonal and weather changes. Water used in overall irrigation should be restricted to that amount necessary to maintain consistent health and growth of plants and turf.

3. Irrigation schedules should be controlled by automatic electronic controls with tensiometers to measure moisture content in the soil and rain shutoff controls so that no watering occurs during rain storms.

4. The irrigation system should include only low volume sprinkler heads and use of drip or bubbler systems whenever possible. Low volume sprinkler heads are defined as "emitting less than 0.75 inches per hour of water."

5. Separate valves should be installed for turf and non-turf areas. Plantings with similar watering requirements should be grouped together as much as possible.

6. Electronic controllers should be set to water between 7:00 pm and 10:00 am to reduce water loss due to evaporation. Turfgrasses should be watered a maximum of once every three days.

Landscaping

1. The overall landscape plan should reflect water conservation by limiting turf areas and using low water-using plants.

2. All non-turf areas should be planted with only low water-using plants, shrubs or trees. Groundcovers other than turf should be used on all slopes exceeding 4 percent.

3. Turf areas should be restricted to 40 percent of the total planted area. Essential large turf areas such as in schools or parks will be allowed at a higher percentage.

4. All replanting of landscaping is subject to these same requirements or recommendations.

Miscellaneous

1. A preventive maintenance program should be established which keep all water using fixtures and irrigation systems in good working order.

2. Landscaping should be maintained in a manner that will minimize water use. This includes weed control, fertilization and use of mulches.

~~3. The City anticipates establishing new citywide requirements for low water-use fixtures and low water-use landscaping, to which SFP shall also be subject~~

3. Cafeteria shall also be subject to any new citywide requirements for low water-use fixtures and low water use landscaping.

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~~September 28, 1989; amended October 10, 1989~~

MISSION BAY EMERGENCY RESPONSE PLAN

OBJECTIVE 1: Incorporate site design, and building/infrastructure construction technology into Mission Bay Plan implementation to reduce seismic risk.

I. Maximize access to the site (particularly south of China Basin Channel).

A) Supplement Sixteenth Street with other streets and rights-of-way through the west side of the site ~~(Mit. K.22.1).~~

B) Reinforce overhead freeway structure (between approximately Mariposa and Sixth Street ramps) ~~(Mit. K.22.1).~~

C) Reinforce the Third and Fourth Street Bridges. Provide quick access to fill to reestablish bridge appproaches in the interim, if necessary ~~(Mits. K.22.2 and K.22.3).~~

II. Exercise state-of-the-art construction practices for buildings and infrastucture that are resistant to potential seismic hazards identified in Mission Bay.

A) Install underground utility systems (water, electrical, sewage, gas/liquid fuel, communications) using materials that are least vulnerable to differential settlement or damage due to lateral movement, provide slack to enable some movement flexibility. In addition, install connections between the underground mains and individual structures, maintaining maximum flexibility to minimize disconnections ~~(Mits. K.8, K.2c, K.22.6).~~

B) Install frequent alternate shut-off valves on gas/liquid fuel lines through the system ~~(Mit. K.16).~~

C) Provide adequate anchorage for all electrical system components such as transformers and switchgear. Where relative movement is likely to occur between equipment, flexible connections or slack should be used to accommodate differential displacement ~~(Mit. K.22.5)~~.

D) Install water storage cisterns and water suction hydrants ~~(Mit. K.20).~~

E) Make sandy soil more dense if determined to be necessary so that liquefaction and lurching would not cause significant impacts to structures/infrastructure not otherwise protected against liquefaction. This should be done in areas where shallow saturated sandy material is found during the subsurface geotechnical studies performed prior to site development ~~(Mit. K.15).~~

F) Use pile-supported buildings whereever feasible and approp[r]iate to reduce the need for excavation, and to mitigate some [e]ffects of settlement and seismic events ~~(Mit K.2)~~.

G) Design connections between the fixed, pile-supported stuctures and unsupported sidewalks and driveways to reduce the likelihood of separation due to settlement. The sidewalks and driveways would require special strengthening to withstand the stress created between stationary buildings and settling soil ~~(Mit. K.2b)~~.

H) The City of San Francisco could adopt and enforce, as a minimum, the seismic standards of the then current Uniform Building Code (UBC) as soon as legally permissible ~~(Mit K.9)~~.

I) Use surcharging and vertical drains to accelerate settlement if it would be useful, effective, and appropriate ~~(Mit. K.5)~~.

OBJECTIVE 2: Provide community facilities that are seismically reinforced and/or can be used to provide emergency services in the event of a major earthquake or disaster.

A) Provide the police and fire stations, and Channel Street sewage pump station with back-up power generators and alternate communications systems to orchestrate emergency sevice during power black-out/interruption in standard utility operations ~~(Mits. K.18.d. K.18.f, K.18.g, K.23)~~.

B) Design school and other community service building (non-fire, non-police, non-pump station) areas so they may be used for administering emergency service, supplies, and information. (This would supplement the District 10 mass care facility to which the Mission Bay neighborhood would be assigned, which is identified in the Citywide Emergency Response Plan.) Between them, such facilities should provide an auditorium, cafeteria, restrooms, and an area in which helicopters may land on an emergency basis ~~(Mit. K.19)~~.

C) Locate emergency facilities away from elevated freeway structures which could shed degris or collapse in a major earthquake, damaging the facility or making it inaccessible. ~~(Mit. K.18.c)~~.

OBJECTIVE 3: Take advantage of services and equipment aspects of Mission Bay development to maximize "self-help" sustenance for that new neighborhood in the event of a major earthquake or disaster. Planning at a localized level would help to reduce casualties and/or assist in facilitating access to citywide services. This is intended to complement citywide emergency response planning, organization and coordination, not substitute for it.

I. Require commercial buildings to prepare and implement an emergency response plan in coordination with the Mayor's Office of Emergency Services and the City Fire Marshall (per Fire Code Section _____) ~~(Mit. K.17).~~

II. Store and equip school or community service buildings with medical supplies and provisions for emergency medical care, and food and water to last for three days ~~(Mit K.19.b).~~

III. Store or secure access to heavy equipment that could travel on damaged roads, clear debris, or open access to Mission Bay ~~(Mit. K.21).~~

IV. Provide public information and education to developers, building owners, building tenants on how to prepare and respond to a major earthquake or disaster. Such instruction would include, but not be limited to an address of the following:

A) Securing all building systems and fixtures to structural elements of the building ~~(Mit K.14a and K.18.h)~~.

B) Installing internal communications systems that have a high degree of keeping building occupants informed/instructed during emergencies.

C) Providing protected storage facilities for hazardous or flammable materials that are resistant to rupture.

D) Installing emergency power systems to operate microwave or other communications systems.

E) Securing or bracing water heaters in residential units, identifying construction types other than masonry for chimneys in wood frame residential buildings. ~~(Mit. K.14.b).~~

DYO/155

~~MAYOR'S OFFICE OF HOUSING AND ECONOMIC DEVELOPMENT~~

~~CITY AND COUNTY OF SAN FRANCISCO~~

~~ART AGNOS~~
~~MAYOR~~

MISSION BAY BUSINESS RELOCATION ASSISTANCE PLAN

STATEMENT OF PURPOSE:

It is in the City's overall interest to retain and expand industrial and, in particular, maritime-related activity within the Central Waterfront. The City desires to support the retention and to encourage the growth of firms which strengthen or complement the maritime operations of the Port of San Francisco, including firms which provide ancillary services to the Port, such as trucking, warehousing, and distribution.

A number of industrial and maritime-related businesses would be displaced by the planned Mission Bay development. The City desires to provide some assistance to help relocate these targeted firms within San Francisco.

LEGAL REQUIREMENTS

~~According to the City Attorney's Office,~~ since Redevelopment land is not involved, the City and/or the Port of San Francisco is/are under no legal obligation to compensate businesses displaced from publicly-owned property for relocation expenses. (There is also, of course, no such obligation for the private developer involved with respect to privately-owned property.)

Most targeted businesses on Port property apparently have month-to-month "licensing" agreements with the Port. A 30-day notice of eviction or nonrenewal is considered sufficient to meet notification obligations to the subject businesses. In the case of an extended lease situation, the Port could buy out the lease at terms negotiated with the tenant business(es).

CHALLENGES TO RELOCATION

Some of the principal challenges to a successful relocation assistance effort within San Francisco are as follows:

(1) The City may not be able to accommodate the number of targeted firms involved in areas outside of Mission Bay. A 1985 Mission Bay Area Business Survey indicated that 39 maritime-related firms, representing over 630 employees, were located in the Mission Bay Project Area.

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(2) Maritime, trucking, and warehousing activity has been on the decline in San Francisco for the past 15 years due to a variety of economic and market factors irrespective of the planned development for Mission Bay. It has become increasingly difficult for such firms to locate in other areas of the Bay Area. It should be noted, for example, that several large trucking/warehousing/ distribution operations recently relocated out of the Bay Area to Vacaville to take advantage of lower cost space, I-80 access, and ability to serve both the Bay Area and growing Sacramento markets.

(3) Many of the targeted businesses appear to be particularly rent-sensitive; they require close or easy access to San Francisco port activities; and good freeway access to the Port of Oakland and other Bay Area maritime facilities; and they desire proximity to vacant land or open space to conduct their business activities. It comes as no surprise that, outside of the Mission Bay area, such space is in short supply.

(4) None of the firms involved in the 1985 survey served the Port of San Francisco exclusively. In fact, every one of them reported using Oakland or other Bay Area facilities more often. Presumably, in like manner, they could serve the Port of San Francisco from locations outside the City.

, and Catellus agrees to cooperate with the City in matters related to,

PROPOSED RELOCATION ASSISTANCE PLAN

While recognizing the City's limited resources and relative inability to counter economic/market location decision factors, the City proposes the following plan to assist industrial and maritime-related firms that would be displaced by Mission Bay, to relocate within San Francisco.

(1) In conjunction with ~~Southern Pacific - Santa Fe,~~ Catellus Development Corporation, the City would identify and maintain a listing of targeted businesses within the Mission Bay Project Area desiring to relocate in San Francisco, including square footage occupied, number of employees, lease rates, ability to absorb rent increases;

(2) The City, through the Mayor's Office of Business and Economic Development, would use best efforts to identify and maintain an inventory of appropriate sites for relocation, including Port and other publicly-owned properties, and would provide information and referrals to targeted Mission Bay tenants as requested;

(3) The Mayor's office of Business and Economic Development would identify state, federal, local or other sources of below market-rate financing for relocation and basic capital improvement costs, and would disseminate information concerning such programs, if any, and assist targeted businesses to apply for such funds as requested.